Botanising in Linnaean Britain : a study of Upper Teesdale in northern England.

Horsman, Frank

BOTANISING IN LINNAEAN BRITAIN: A STUDY OF UPPER TEESDALE IN NORTHERN ENGLAND

FRANK HORSMAN

A thesis submitted for the degree of Doctor of Philosophy in the Department of Philosophy, University of Durham.

1998

ABSTRACT

FRANK HORSMAN

BOTANISING IN LINNAEAN BRITAIN: A STUDY OF UPPER TEESDALE IN NORTHERN ENGLAND

DOCTOR OF PHILOSOPHY
1998

The Swede, Carl Linnaeus (1707-1778), introduced an artificial " Sexual System " of plant classification in 1735, and a binomial system of nomenclature in 1753. They made plant identification much easier. The Linnaean period in Britain lasted from 1760 until [1810-]1830. It is demonstrated that it was during this period that it was first recognised that an unusually high number of rare plants grow in Upper Teesdale.

Most of the rare plants of the then very remote Upper Teesdale were discovered shortly after 1783 by William Oliver (1760-1816), alone. He was a surgeon and part of a medical dynasty. How he became a botanist, with his medical background, is examined in detail. He trained at Edinburgh but did not do botany. However, he knew John Hope, the Professor of Botany. Hope was one of only two people teaching the Linnaean system in Britain at this time. The appearance of Linnaean floras of Britain in English from the 1770's onwards made field botany accessible to anyone. Previously complex natural systems of plant classification and the use of Latin had restricted access.

How Oliver's discoveries were made known is examined in detail. It involved Rev. John Harriman (1760-1831) who was influenced by the Linnean Society of London, formed in 1788, and the Linnaean *English Botany* which began in 1790. He wanted to become a Fellow of the Linnean Society. James Edward Smith was President of the Linnean Society and an author, with James Sowerby, of *English Botany*. It also involved Edward Robson (1763-1813), a Quaker botanist and already an Associate of the Linnean Society, and his compilation: *Plantae rariores agro Dunelmensi indigenae* of 1798, and John Binks (1766-1817), an artisan botanist. Medicine made botanists of both Harriman and Binks, as well as Oliver. Linnaeus influenced the teaching of *materia medica* (the plant simples).

CONTENTS

PLATES

(NB. Each plate follows the page number).

UNIVERSITY OF DURHAM

GRADUATE SCHOOL

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ACKNOWLEDGEMENTS

It is with particular pleasure that I take this opportunity to thank my supervisor, David Knight, for his enduring encouragement, sympathetic understanding and numerous vigorous conversations. I would like to pay tribute to the memory of Arthur Sledge and to thank Arthur Chater: my referees in my application to Durham to do a higher degree.

There have been three key figures who have helped me actually pursue this research. Peter Davis, then of The Hancock Museum, Newcastle upon Tyne, helped to get me started in, what was to me, a new discipline. John Hargrave, then of the Durham County Record Office, freely made his expertise available to me, as did Margaret McCollum of Durham University Library Archives and Special Collections. Ms. McCollum was particularly helpful regarding matters relating to the Church of England around 1800. I greatly appreciate all their help.

My thanks are due to the staffs of the local and national archives, herbaria and libraries who have helped me. My particular thanks go to Gina Douglas, Librarian and Archivist of The Linnean Society of London; Alec Coles and Leslie Jessop of Sunderland and The Hancock Museums; Douglas McKean of the Royal Botanic Garden, Edinburgh; John Edmondson of Liverpool Museum; Megan [illegible] of The Natural History Museum, London, and John Symons of The Wellcome Institute for the History of Medicine.

I have enjoyed my communication with my many correspondents about the subject of this research. I thank Albert Henderson for translating the Latin, and Jack Bootland for helping me to become more or less computer literate.

Contributions were made towards my expenses in visiting various archives and libraries in pursuance of my research by an Alan Jemison Bursary, administered by my department; The Dean of the Faculty of Arts' Fund, University of Durham; The Wellcome Trust; Leeds Flexifund, and my department. I am most grateful for this support.

This work is dedicated to the memory of my mother.

INTRODUCTION

This research was prompted by my rediscovery of a Teesdale plant rarity in Upper Teesdale. I was very surprised to find, when I came to examine the old records for this plant in Upper Teesdale, that the botanical discovery and floristic recognition of this area was not understood. Raven and Walters (1984:142) remark: "The flora of Teesdale is perhaps better known - and by no means only to professed botanists - than that of any other mountainous area in Britain..." This fact makes the lack of a proper understanding of how Upper Teesdale came to be floristically recognised all the more remarkable. I cannot put this floristic recognition of Upper Teesdale into context better than Godwin and Walters (1967:348):

> In the development of scientific botany, the 18th Century and the first half of the 19th Century were concerned largely with descriptive [floristic] studies in which the identity of the individual species (as opposed to the communities or groups of species growing together) was stressed. Thus there was early recognised a small number of remarkable localities in the British Isles, each distinguished by a collection of rare or local species of plants growing there. Upper Teesdale was in this category...

The subject of the botanical pioneers of Upper Teesdale caught my imagination and I decided to research it. In any event, the floristic recognition of such a remarkable locality is, in itself, deserving of resolution. Further, given that this recognition occurred around the end of the eighteenth century, still in the heyday of Linnaean botany in Britain, but against the backcloth of the Napoleonic wars, it's elucidation might prove illuminating about the practise of Linnaean botany in Britain at this time, particularly in the provinces, remote from the metropolis.

At the time I am concerned with, Upper Teesdale overlapped the boundaries of the counties of Durham, Yorkshire, Westmorland and Cumberland in the north of England. **Plates 1** and **2** show the location of Upper Teesdale and the places mentioned in the text. That part of Teesdale above Middleton-in-Teesdale is normally regarded as Upper Teesdale. However, I have treated Upper Teesdale as being that

Plate 1. Upper Teesdale in a British and regional context. The county boundaries are contemporary.

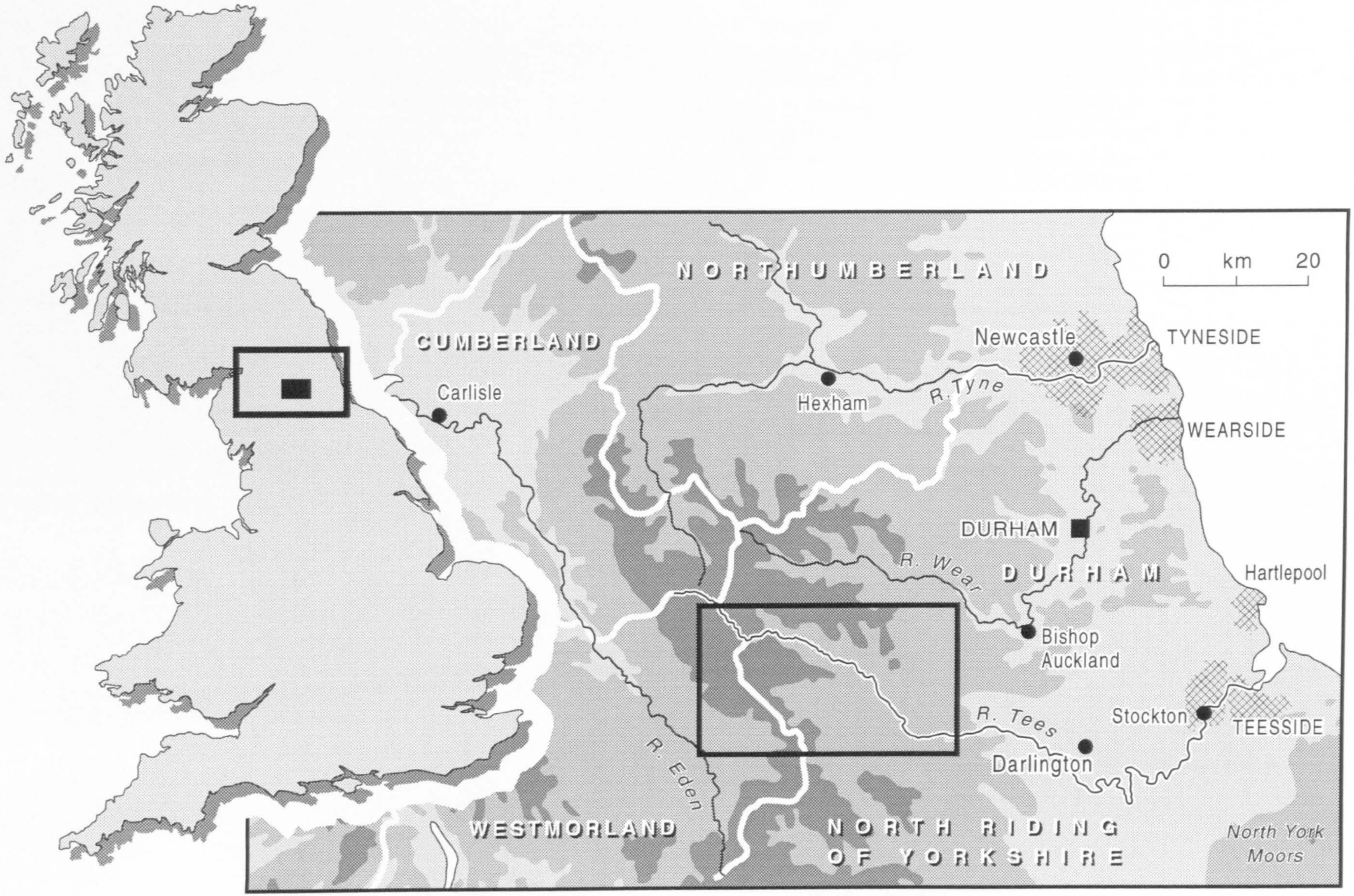
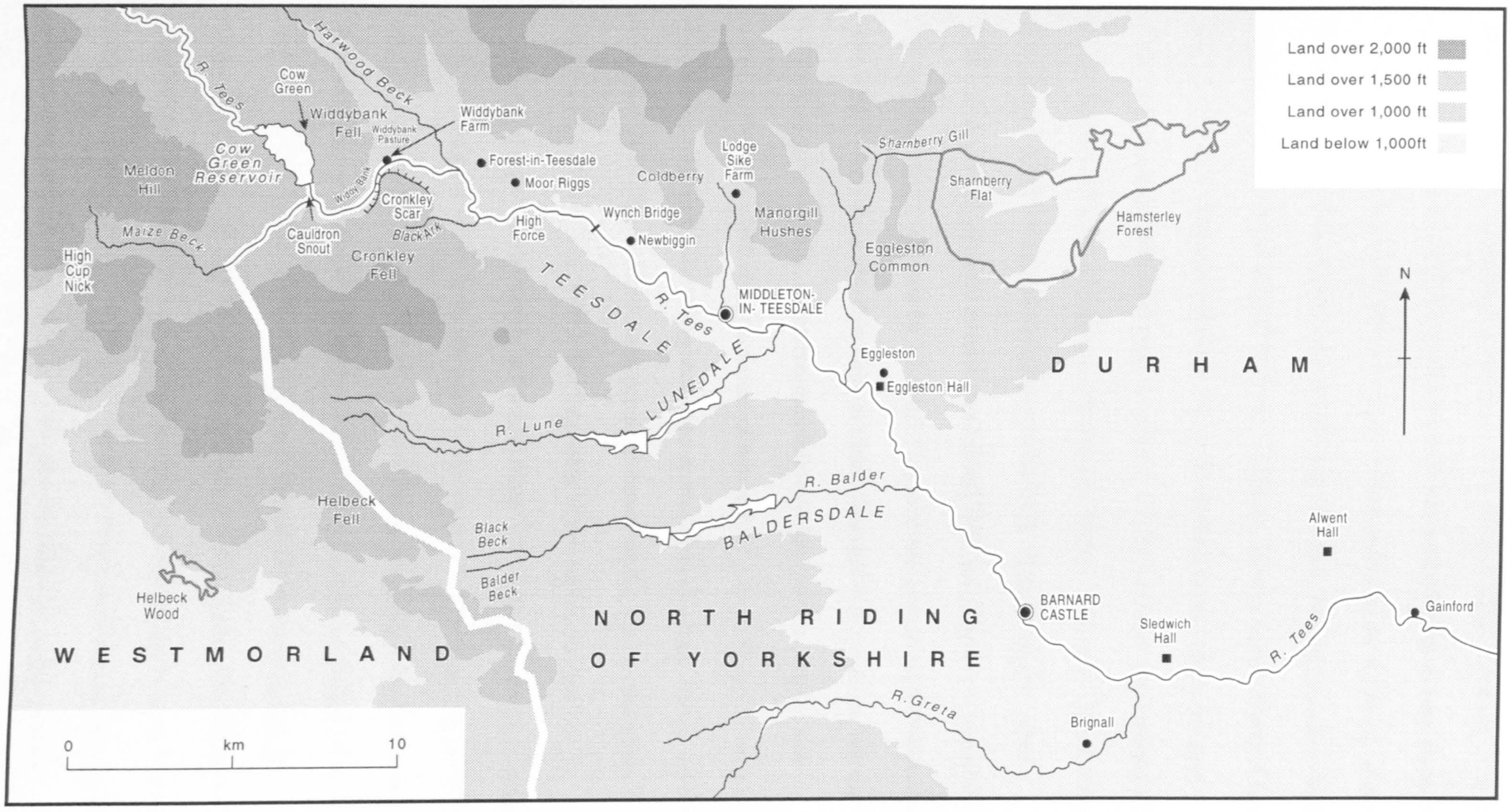

0 km 20
NORTHUMBERLAND
CUMBERLAND
Carlisle
Hexham
Newcastle
TYNESIDE
R. Tyne
WEARSIDE
DURHAM
R. Wear
DURHAM
Hartlepool
Bishop Auckland
Stockton
TEESSIDE
R. Tees
Darlington
R. Eden
WESTMORLAND
NORTH RIDING OF YORKSHIRE
North York Moors

Plate 2. Teesdale. The county boundaries are contemporary.

Land over 2,000 ft
Land over 1,500 ft
Land over 1,000 ft
Land below 1,000ft

Cow Green
Widdybank Fell
Widdybank Pasture
Widdybank Farm
Harwood Beck
R. Tees
Cow Green Reservoir
Meldon Hill
Widdy Bank
Cronkley Scar
Cauldron Snout
Maize Beck
High Cup Nick
Black Ark
Cronkley Fell
Forest-in-Teesdale
Moor Riggs
Coldberry
Lodge Sike Farm
Sharnberry Gill
Sharnberry Flat
Hamsterley Forest
Wynch Bridge
Newbiggin
High Force
Manorgill
Hushes
Eggleston Common
TEESDALE
R. Tees
MIDDLETON-IN-TEESDALE
LUNEDALE
R. Lune
Eggleston
Eggleston Hall
D U R H A M
N
Helbeck Fell
Helbeck Wood
Black Beck
Balder Beck
R. Balder
BALDERSDALE
Alwent Hall
BARNARD CASTLE
Sledwich Hall
R. Tees
Gainford
R. Greta
Brignall
N O R T H R I D I N G
O F Y O R K S H I R E
W E S T M O R L A N D
0 km 10


Land over 2,000 ft
Land over 1,500 ft
Land over 1,000 ft
Land below 1,000ft
N
R. Tees
Harwood Beck
Cow Green
Widdybank Fell
Widdybank Pasture
Widdybank Farm
Cow Green Reservoir
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Eggleston Common
Manorgill Hushes
Wynch Bridge
Newbiggin
High Force
Black Ark
Cauldron Snout
Maize Beck
High Cup Nick
Cronkley Fell
TEESDALE
R. Tees
MIDDLETON-IN-TEESDALE
Eggleston
Eggleston Hall
DURHAM
LUNEDALE
R. Lune
R. Balder
BALDERSDALE
Helbeck Fell
Black Beck
Balder Beck
Helbeck Wood
WESTMORLAND
NORTH RIDING OF YORKSHIRE
BARNARD CASTLE
Alwent Hall
Sledwich Hall
R. Tees
Gainford
R. Greta
Brignall
0
km
10

part of the dale above Eggleston (see **pl. 2**). In looking at Upper Teesdale today, it must be remembered that Cow Green reservoir was not built until as recently as 1970.

Before proceeding to my actual research, it is necessary to put it into it's wider historical context. The original botanical pioneer of Upper Teesdale was Rev. Ralph Johnson (1629-1695) of Brignall in North Yorkshire. He was a great friend of John Ray (1627-1705). Johnson is known to have discovered twenty plants in Upper Teesdale (Horsman, 1995; Horsman, in prepn.), of which thirteen are members of the " Teesdale assemblage " of plants as delineated by Pigott (1956: 580-581), Godwin and Walters (1967: 351), and Bradshaw (1970: 142). These are plants with a particular phytogeographical interest (see below). Why was the floristic recognition of Upper Teesdale not achieved by Johnson? There are two clear reasons. Firstly, only one of his records for a Teesdale rarity in Upper Teesdale was published, and that not in his name, and secondly, an interregnum followed Ray's death, shortly after Johnson's, during which an appreciation of nature gave way to the age of reason (Horsman, 1995:164). The resurgence of an appreciation of nature, that is, the setting in train of the Romantic Movement, occurred during the last forty years of the eighteenth century (Allen, 1993). The beginning of this period also marked the establishment of Linnaean botany in Britain (Allen, 1993:342-343; Stearn in Linnaeus, 1753, facsimile 1957:80), although Allen (1993:343; 1976:31) is quick to point out that Linnaeus was certainly not solely responsible for this resurgence. Linnaeus's " Sexual System " of plant classification lasted in Britain almost unchallenged until 1810. By 1830 it had outlived its usefulness, although his binomial system of nomenclature remains a mainstay of taxonomy to this day (Stearn, 1957: 80). Thus, when a new botanical pioneer of Upper Teesdale, William Oliver (1760-1816) of Middleton-in-Teesdale, who was totally unaware of the botanical work Johnson had already done in Upper Teesdale, embarked upon his botanical studies in Upper

Teesdale in the 1780's, it was in a cultural climate which was sympathetic to nature, and also it was in the age of Linnaean botany. Johnson had worked with Ray's difficult and incomplete natural classification of plants: Oliver worked with Linnaeus's easy artificial " Sexual System " of plant classification. Also, Johnson had had to work with nomenclature consisting of cumbersome polynomials or phrase names: Oliver worked with Linnaeus's much more straightforward binomial system of nomenclature. However, despite these differences between the botany of the latter half of the seventeenth century and the turn of the eighteenth century being conducive to Oliver (initially incidentally) achieving the floristic recognition of Upper Teesdale, Johnson and Oliver had in common that they botanised alone.

This comparison between Johnson and Oliver in terms of the different ages in which they lived is also useful in pointing up the increased accessibility of botany at the turn of the eighteenth century. Johnson had graduated from Cambridge (Horsman, in press) and used Ray's naturalistic botanical works, written in Latin and accessible to few for a variety of economic, educational and cultural reasons. As will be discussed later, Oliver was a surgeon apothecary, who had some Latin. However, the flora he used was Rev. John Lightfoot's (1735-1788) Linnaean *Flora Scotica*, published in 1777, written in English and approachable (although possibly not easy to obtain in the early years after its first publication). The year before, the first edition of William Withering's (1741-1799) *A Botanical Arrangement of all the Vegetables Naturally Growing in Great Britain. WITH DESCRIPTIONS OF THE GENERA AND SPECIES, According to the System of the celebrated Linnaeus. Being an Attempt to render them familiar to those who are unacquainted with the LEARNED LANGUAGES* had appeared. Not only was it too written in English, but it included "An Easy Introduction To the Study of Botany", illustrated with figures, "Directions

for Drying and Preserving Specimens of Plants",[1] "The Glossary...of English Botanical Terms" and "The Latin Terms of *Linnaeus*; With the corresponding *English* WORDS." In the second edition, as Secord (1994:298) points out, Withering (1792: lxxxiv-xcii) "accents" this last section as a guide to pronunciation. She also points out that Withering's *Botanical Arrangement* was "one of the most common books to be found in [contemporary or later?] artisans' botanical libraries,.." (Secord, 1994:309). Withering's revision of this last section was no doubt in response to the help which he recognised contemporary artisans required with Latin. Allen (1976:48) describes Withering's *Botanical Arrangement* as " a deliberately 'popular ' manual..." and Withering as "the pioneer of the non-specialist guide (by no means a simple art)..." Henrey (1975:119) lauds this first edition of Withering's *Botanical Arrangement* as: "The first outstanding work on British plants to be published in English..." What one can say with certainty about " Withering " is that it provided the maximum accessibility to contemporary (Linnaean) botany. Amongst the literate, in employment which enabled them, or rather made it essential for them, to enjoy their leisure, no one was now debarred from taking up field botany. Indeed, even the illiterate could learn Linnaean botany, including the Latin names, by attending the botanical clubs which met in pubs on Sundays in the Manchester area from the 1790's onwards. Plants were named out loud in Latin and the names learnt by repetition (Secord, 1994:277,281-282).

Oliver was taught clinical medicine by Professor John Hope (1725-1786) at the Royal Infirmary, Edinburgh. In 1761 Hope became Professor of Botany at Edinburgh (Morton, 1986:17), and from 1768 he was simultaneously one of the two physicians-in-ordinary at the Royal Infirmary, Edinburgh (Risse, 1986:61,63). Hope

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[1] Allen (1976:48) points out that Withering was the "first person in print to introduce the great majority of British botanists to the value of the screw-down plant-press and the tin vasculum."

corresponded with Linnaeus (Morton, 1986:31-35), and in 1763 both he and Rev. Thomas Martyn (1735-1825), Professor of Botany at Cambridge, started to give lectures on Linnaeus's artificial " Sexual System " of plant classification (Allen, 1976:42). At this time only Hope and Martyn were teaching Linnaeus's "Sexual System" in Britain (Morton, 1986:11). In the preface to his *Flora Scotica*, 1777, John Lightfoot acknowledges the help he had received in writing the book from various botanists:

> Among these I have the pleasure first to mention with gratitude the name of Dr. *Hope*, the present celebrated professor of botany at *Edinburgh*, who not only favoured me with the sight of his copious *Herbarium*, but permitted me the use of his notes and observations, the result of a long enquiry.

In 1772 Lightfoot made a tour of Scotland with Thomas Pennant (1726-1798). They entered Scotland on 1 June and left on 29 September (Slack, 1986:59-76). Bowden (1989:53-85) describes the tour in detail. This was the extent of the time Lightfoot spent in Scotland before his *Flora Scotica* appeared. He must, therefore, have relied on the assistance he received in writing his flora very greatly, particularly from Hope. Hope had intended to publish his own Scottish flora, but it never appeared (Morton, 1986:17-18). Indeed, he withheld some records from Lightfoot because Pennant "...was very happy to use the information of others in a somewhat unscrupulous way" (Henderson and Dickson, 1994:19). Oliver's copy of *Flora Scotica* (see below) would have been particularly useful to him in Upper Teesdale because of the number of alpines it inevitably included, although I think this is coincidental. On their way home from Scotland Pennant and Lightfoot called on Thomas Bolton (1722?-1778) near Halifax, an "old correspondent" of Pennant's (Bowden, 1989:84). Thomas's younger brother, James (1735?-1799), was a friend of Lightfoot's (Edmondson, 1995), although it is not known if this relationship already existed, or started, when Lightfoot visited Thomas with Pennant. Pennant was a friend of George Allan (1736-1800) Esq. (*q.v.*), of Blackwell Grange, Darlington. The publication of *Flora Scotica* was paid

for by Pennant (Bowden, 1989: 99). Pennant wrote to Allan on 10 October, 1777: "...Pray recommend Lightfoot's Flora, which I interest myself in " (Nichols, 1814 **VIII**: 737). Allan replied on 14 December, 1777: "...We have so few Botanists in this part, that I cannot recommend Mr. Lightfoot's Flora as I could wish. I did mention it to [Stephen] Robson on my return from Harrowgate [sic], and find he has got it..." (Nichols, 1814 **VIII**: 738). The number of botanists in the Darlington area had evidently increased by 1793 as a society formed in Darlington in that year included botanists amongst its members (see below). However, the numbers waned following the publication of *The Botanist's Guide through the Counties of Northumberland and Durham* by Winch *et al.* in 1805 and 1807.[2] As will be discussed later, James Bolton was also a friend of Edward Robson's (1763-1813), who plays a major role in this study. [Later Sir] James Edward Smith (1759-1828) visited Halifax and met Bolton, probably James (Edmondson, 1995:2,5). Smith owned Linnaeus's collections, including his herbarium, founded the Linnean Society of London in 1788, and wrote the letterpress to Sowerby's classic Linnaean *English Botany*. He studied medicine at Edinburgh in the period 1781 to 1783. He also studied botany under John Hope. He wrote to his father: "His [Hope's] behaviour was at first (as it generally is) a little reserved; but botanical studies opening the way, he became perfectly affable and treats me with paternal tenderness" (Walker, 1988:4,6). Oliver studied medicine at Edinburgh from 1780 until 1783. However, unlike Smith, he was not a "gentleman" and there is no evidence that they ever met. Archibald Menzies (1754-1842), the Scottish surgeon-botanist, was also a pupil of Hope's, completing his course in 1781 (Galloway and Groves, 1987:3; Morton, 1986:26-27). Hope was a friend of John Walker (1731-1803) who was professor of natural history at Edinburgh from 1779

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[2] Letter from Winch to Turner dated 3 May, 1807. Ref: DT 5: f.62. And letter from William Backhouse to Winch dated 25 July, 1808. Ref: W2.077.

until his death. Walker, who also tutored Smith, was greatly respected by Linnaeus (Withers, 1991:201), and botany was "especially his dearest pursuit;.." (McKay, 1980:1). Allen (1978:485) remarks that Hope and Walker were "the most stimulating of teachers who went out of their way to foster enthusiasm for the subject [natural history]."

In the widest context, my research touches upon individuals, specifically John Binks (1766-1817), who collected plant simples for the druggists in late eighteenth century Britain. At the beginning of the nineteenth century James Backhouse Snr. (*q. v.*) worked for " a business in the Grocery, Drug & Chemical lines " in Darlington. This business, for instance, distilled peppermint in the back shop.[3] Was it this kind of retail business for which Binks collected simples? I do not know if there were any *wholesale* druggists in the Darlington area at this time. I suspect not. On the face of it, it seems unlikely that this was how provincial druggists obtained *all* their simples. From where then did they obtain them? Thomas Corbyn's (a Quaker) (*q. v.*) of London was one of the largest eighteenth- century pharmaceutical manufacturers. Most of his orders, as a wholesale druggist, came from provincials, amongst whom, presumably, were many small-town druggists such as Backhouse Snr.'s (Quaker) employer. Corbyn's imported some, but presumably not all, of their raw materials. However, " we have hardly any information as to how Corbyn obtained his basic supplies " (Porter and Porter, 1989). We do not know how Corbyn obtained basic supplies from the domestic market. It would be very interesting to try and establish the nature and extent of the activities of collectors like Binks in the medical economy of the time. To what extent did small-town druggists depend on people like Binks rather than the wholesale druggists? If they were collecting plant, animal and mineral

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[3] Pp. 19 and 20 Australian ms. See Chapter 1 footnote 4 (note 1/4) for reference.

* Details are now given of some specific developments shortly before this research was commenced.

simples, a culture of natural history, even in a primitive (folk?) form, must have evolved.

*How ——————— *Plantae rariores agro Dunelmensi indigenae* (Rarer wild plants in County Durham) (the Durham Catalogue) came to light is best explained by Davis and Graham (1981:337):

> In 1973, as a contribution towards a new Durham flora, Miss J. Gaman, Secretary to the Horticultural Officer of Durham University, wrote to the Bodleian Library asking for a photocopy of *Plantae rariores*... which she had been informed was in the John Johnson collection. The copy was duly provided and remained in the 'Flora file' of the Horticultural Officer. During this time a second copy was taken by the co-ordinator of the Flora project (G.G.G.); this proved to be extremely fortunate, as during internal re-arrangement and staff changes in the University the 'Flora file' was lost and Miss Gaman could not remember what or who had prompted her to contact the Bodleian in the first place.

I obtained a further, this time *complete,* copy from the Bodleian **(plate 3)**, which was most helpful. I was fortunate in knowing where to apply. Blanche Henrey (1975,**II**:136) had been unable to trace a copy. Peter Davis (1980:9), then of Sunderland Museum, identified Edward Robson's herbarium in 1980. It had previously been attributed to Edward Backhouse (1808-1879) (pers. comm.), who married Edward Robson's eldest daughter, Mary (Foster, 1894: 31). Davis (1989) re-examines the life of James Backhouse (1794-1869) Snr. (*q.v.*) as a botanist.[4] In 1988 the "new Durham flora", namely, G. Gordon Graham's *The Flora & Vegetation of County Durham*, appeared. It is the first flora of County Durham since Baker and Tate's *A New Flora of Northumberland and Durham* was published in 1868. It includes a section entitled "A History of Botanical Recording in Durham" by Peter Davis (1988:8-23). This section incorporates some of my very early results ——————— (Davis, 1988: 7-8). Graham includes historical records. However, none of William Oliver's records are included as such.

Plate 3 (<u>one sheet</u>). *Plantae rariores agro Dunelmensi indigenae* (2 pages) **compiled** by Edward Robson and dated 1 May, 1798, together with Edward Robson's *Plantae Desideratae* of 1 May, 1798. This copy is addressed to " James Sowerby No. 2 Mead Place near the Asylum London ". The Bodleian Library, Oxford.

PLANTÆ RARIORES AGRO DUNELMENSI INDIGENÆ.

N. B. *Harum nomina ex Ordinibus Botanicis Clar. Withering sunt desumpta. His solum exceptis ita designatis:* † *Eng. Bot.* ‡ *Gooden & Woodw. in Lin. Transf.* ‡‡ *Bolton. Fung.* * *Sowerb. Fungi.*

CHARA
- hispida.
- flexilis.

HIPPURIS
- vulgaris.

ZANNICHELLIA
- palustris.

VERONICA
- scutellata.
- montana.

PINGUICULA
- vulgaris.

UTRICULARIA
- vulgaris.

SALVIA
- Verbenaca.

ORCHIS
- bifolia.
- pyramidalis.
- ustulata.
- conopsea

SATYRIUM
- albidum.
- viride.

OPHRYS
- Nidus-avis.
- cordata.
- muscifera.
- apifera.

MALAXIS
- paludosa.

SERAPIAS
- latifolia.
- longifolia.

CYPRIPEDIUM
- Calceolus.

IRIS
- fœtida.

ERIOPHORUM
- vaginatum.

SCIRPUS
- palustris.
- cæspitosus.
- fluitans.
- setaceus.
- sylvaticus.
- maritimus.

CYPERUS
- nigricans.

SCHŒNUS
- Mariscus.

CAREX
- dioica.
- pulicaris.
- ovalis.
- remota.
- arenaria.
- pendula.
- panicea.
- pallescens.
- limosa.

PHALARIS
- canariensis.
- arenaria.

PANICUM
- veride.
- Dactylon.

MILIUM
- effusum.

CALAMAGROSTIS
- Epigejos.
- arenaria.

AIRA
- flexuosa.
- precox.

MELICA
- cerulea.
- uniflora.

SESLERIA
- cerulea.

POA
- distans.
- cristata.
- nemoralis.
- rigida.
- maritima.

FESTUCA
- duriuscula.
- tenuifolia.
- sylvatica.

ROTTBOLLIA
- incurvata.

ELYMUS
- arenarius
- europæus.

TRITICUM
- junceum.
- caninum.

AMARANTHUS
- Blitum.

MONTIA
- fontana.

EMPETRUM
- nigrum.

DIPSACUS
- sylvestris.
- pilosus.

GALIUM
- procumbens.
- uliginosum.
- spurium.
- boreale.
- Mollugo.

PLANTAGO
- maritima.
- Coronopus.

POTAMOGETON
- perfoliatum.
- lucens.
- densum.
- compressum.
- marinum.
- pusillum.

RUPPIA
- maritima.

PULMONARIA
- officinalis.

BORAGO
- officinal.

PRIMULA
- farinosa.

HOTTONIA
- palustris.

LYSIMACHIA
- vulgaris.

ANAGALLIS
- tenella

CAMPANULA
- latifolia.
- glomerata.
- hybrida.

SAMOLUS
- Valerandi.

JASIONE
- montana.

ATROPA
- Belladonna.

EUONYMUS
- europæus.

VIOLA
- palustris.
- tricolor.
- lutea.

RIBES
- rubrum.
- alpinum.
- spicatum.
- nigrum.
- Grossularia.

GLAUX
- maritima.

CHENOPODIUM
- hybridum.
- olidum.
- polyspermum.
- maritimum.

ATRIPLEX
- portulacoides.
- laciniata.
- littoralis.
- pedunculata.

BETA
- maritima.

GENTIANA
- Amarella.
- campestris.
- verna.

ERYNGIUM
- maritimum.
- campestre.

BUPLEURUM
- tenuissimum.

CAUCALIS
- daucoides

SIUM
- latifolium.
- angustifolium.

SISON
- Amomum.

ŒNANTHE
- crocata.
- pimpinelloides.

SCANDIX
- odorata.

IMPERATORIA
- ostruthium.

PASTINACA
- sativa.

SMYRNIUM
- Olusatrum.

ANETHUM
- Fœniculum.

CARUM
- Carui.

PIMPINELLA
- magna.

APIUM
- graveolens.

SAMBUCUS
- Ebulus.

PARNASSIA
- palustris.

STATICE
- Armeria.
- Limonium.

LINUM
- perenne.

DROSERA
- rotundifolia.
- longifolia.

MYOSURUS
- minimus.

GALANTHUS
- nivalis.

NARCISSUS
- biflorus.
- Pseudo-Nar.

ALLIUM
- oleraceum.

ORNITHOGALUM
- luteum.

NARTHECIUM
- ossifragum.

FRANKENIA
- levis.

RUMEX
- Hydrolapathum.
- pulcher.
- maritimus.
- aureus.

JUNCUS
- triglumis.

TOFIELDIA
- palustris.

TRIGLOCHIN
- maritimum.

COLCHICUM
- autumnale.

ALISMA
- ranunculoides.

EPILOBIUM
- angustifolium.
- tetragonum.

VACCINIUM
- Myrtillus.
- Vitis-idæa.
- Oxycoccos

ERICA
- tetralix.
- cinerea.

DAPHNE
- Laureola.

POLYGONUM
- Bistorta.
- viviparum.

PARIS
- quadrifolia.

ADOXA
- Moschatellina.

RHODIOLA
- rosea.

MYRIOPHYLLUM
- verticillatum.
- spicatum.

MERCURIALIS
- annuus.

BUTOMUS
- umbellatus.

PYROLA
- vulgaris.
- minor.

CHRYSOSPLENIUM
- alternifolium.
- oppositifolium.

SAXAFRAGA
- stellaris
- aizoides.
- hypnoides.
- tridactylites.

SAPONARIA
- officinalis.

DIANTHUS
- Armeria.

SILENE
- anglica.
- maritima.
- noctiflora.

STELLARIA
- nemorum.
- uliginosa.

ARENARIA
- peploides.
- marina.
- verna.

SEDUM
- Telephium.
- villosum.
- album.

CERASTIUM
- arvense.

SPERGULA
- nodosa.

RESEDA
- Luteola.
- lutea.

EUPHORBIA
- paralias.

PRUNUS
- padus. *Cratægico Arbo.*

SPIRÆA
- Filipendula.

ROSA
- arvensis.
- spinosissima.
- villosa.

RUBUS
- idæus.
- cæsius.
- saxatilis.
- chamæmorus.

POTENTILLA
- fruticosa.
- argentea.

GEUM
- rivale.
- var. 2 & 3.

DRYAS
- octapetala

COMARUM
- palustre.

CHELIDONIUM
- glaucum.

PAPAVER
- hybridum.
- Argemone.

NYMPHÆA
- lutea.

CISTUS
- marifolius. †

AQUILEGIA
- vulgaris.

THALICTRUM
- alpinum.
- minus.
- majus.

RANUNCULUS
- Lingua.
- hederaceus.

TROLLIUS
- europæus.

HELLIBORUS
- fœtidus.
- viridis.

NEPETA
- Cataria.

VERBENA
- officinalis

LAMIUM
- dissectum.

MELISSA
- Calamintha.

BARTSIA
- alpina.

MELAMPYRUM
- pratense.

LATHRÆA
- squamaria.

ANTIRRHINUM
- spurium.
- Elatine.
- minus.
- majus.
- orontium.

OROBANCHE
- major.

MŒNCHIA
- salivæ

BUNIAS
- cakile.

ISATIS
- tinctoria.

DRABA
- incana.

LEPIDIUM
- latifolium.
- didymum.
- ruderale.

THLASPI
- arvense.
- alpestre.

COCHLEARIA
- officinalis.
- groenlandica.

CARDAMINE
- flexuosa.
- amara.

SISYMBRIUM
- terrestre

ERYSIMUM
- cheiranthoides.

ARABIS
- thaliana.

TURRITIS
- glabra.
- hirsuta.

BRASSICA
- oleracea.
- muralis.

JUNIPERUS
- communis.

GERANIUM
- sanguineum.
- sylvaticum.
- lucidum.

MALVA
- moschata.

TAXUS
- baccata.

FUMARIA
- claviculata.

GENISTA
- anglica.

ANTHYLLUS
- Vulneraria.

LATHYRUS
- Aphaca.
- hirsutus.

VICIA
- Sylvatica.
- lathyroides.

ORNITHOPUS
- perpusillus.

HEDYSARUM
- Onobrychis.

ASTRAGALUS
- Hypoglottis.
- Glycophy.

TRIFOLIUM
- repens. var. 3.
- hybridum.
- glomeratum.
- scabrum.
- striatum.
- arvense.
- medium.
- ochroleucum.
- maritimum.
- fragiferum.

HYPERICUM
- humifusum.
- montanum.

PICRIS
- Echioides.

LACTUCA
- virosa.

HIERACIUM
- paludosum.
- murorum.
- umbellatum.

CREPIS
- biennis.

CICORHIUM
- intybus.

SERRATULA
- arvens. var. 2.

CARDUUS
- eriophorus.
- helenioides.
- acaulis.

ONOPORDUM
- Acanthium.

BIDENS
- cernua. var. 2.

TANACETUM
- vulgare.

GNAPHALIUM
- dioicum.
- rectum.

ERIGERON
- canadense.
- acre.

SENECIO
- viscosus.
- sylvaticus.
- tenuifolius.

ASTER
- Tripolium.

URTICARIA
marina.
ANTHEMIS
arvensis.
nobilis.
Cotula.
CENTAUREA
Calcitrapa.
EQUISETUM
hyemale.
arvense.
flexile.
LYCOPODIUM
clavatum.
selaginoides.
selago.
alpinum.
HYOGLOSSUM
Bulbosum.
OSMUNDA
Lunaria.
Regalis.
FILIX
crispa.
ASPLENIUM
Scolopendrium.
Ceterach.
viride.
Marinum.
Adiant. nigrum.
POLYPODIUM
Phegopteris
Dryopteris
fragile.
Dryopteris.
BLECHNUM
Spicant.
ASPLENIUM
Scolopendrium.
viride.
Marinum.
Adiant. nigrum.
POLYPODIUM
Phegopteris
Dryopteris
fragile.
Dryopteris.
BLECHNUM
pulbaceum.
POLYTRICHUM
piliferum.
alpinum.
POLYTRICHUM
aciculare.
commune.
undulatum.
formosum.
Pellucens.
illustre.
decipiens.
polyphyllum.
PTERIS
aquilina.
BOTRYCHIUM
Lunaria.
ACROSTICHUM
crispum.
Thelypteris.
Filix mas.
Filix fœmina.
Lonchitis.
Ilvense.
Septentrionale.
Fragile.
Ruta muraria.
Trichomanes.
Adiantum nigrum.
Ceterach.
Hemionitis.
Scolopendrium.
Hemionitis palmata.
Hemionitis.
Hemionitis.
Hemionitis

PLANTÆ DESIDERATÆ. S. Robson Darlington Sturgis.

CHARA
tomentosa.
VERONICA
alpina. —— sent
ORCHIS
militaris.
SATYRIUM
hircinum.
OPHRYS
Corallorhiza.
SERAPIAS
ensifolia.
grandiflora.
rubra.
SALIX
myrsinites.
retusa.
lanata.
lapponum.
ERIOPHORUM
polystachion.
alpinum. ——
SCIRPUS
romanus. ——
CYPERUS
aicularis.
SCHŒNUS
fuscus.
rufus.
ferrugineus.
CAREX
incurva.
extensa.
depauperata.
PHLEUM
nodosum.
ALOPECURUS
paniceus.
AGROSTIS
minima.
littoralis.
alpina.
maritima.
vinealis.
LOLIUM
arvense.

POA
alpina.
bulbosa.
rupestris.
glauca.
FESTUCA
loliacea.
cambrica.
glabra.
AVENA
strigosa.
GALIUM
montanum.
scabrum.
POTAMOGETON
setaceum.
pectinatum.
CYNOGLOSSUM
sylvaticum.
AZALEA
procumbens.
LOBELIA
urens.
VERBASCUM
thapsoides.
virgatum.
VIOLA
lactea. †
GENTIANA
nivalis.
ECHINOPHORA
spinosa.
TORDYLIUM
officinale.
maximum.
DAUCUS
maritimus.
PEUCEDANUM
officinale.
CRITHMUM
maritimum.
ANGELICA
archangelica.
SIUM
repens.
SISON
verticillatum.

SCANDIX
cerefolium.
LINUM
tenuifolium. ——
ALLIUM
ampeloprasum.
carinatum.
vineale
LEUCOJUM
Æstivum.
ORNITHOGALUM
pyrenaicum.
SCILLA
verna.
ANTHERICUM
serotina.
ASPARAGUS
officinalis.
JUNCUS
uliginosus.
maximus.
spicatus
FRANKENIA
pulverulenta.
RUMEX
paludosus.
ALISMA.
natans.
lanceolata.
ELATINE.
Alsinastrum.
PYROLA
umbellata.
SAXAFRAGA
cernua.
petræa.
DIANTHUS
carryophyllus.
SILENE
conica.
STELLARIA
glauca.
cerastoides.
ARENARIA
media.
juniperina.

COTYLEDON
lutea.
CERASTIUM
pumilum.
alpinum. ——
latifolium. ——
SPERGULA
subulata.
CERATOPHYLLUM
submersum. ——
EUPHORBIA
stricta. †
platiphyllas.
peplis.
hyberna.
characias.
PRUNUS
avium.
POTENTILLA
opaca.
aurea.
TORMENTILLA
reptans.
CHELIDONIUM
corniculatum.
PAPAVER
maritimum.
ZOSTERA
oceanica.
ANEMONE
pratensis.
ADONIS
Æstivalis.
BARTSIA
viscosa.
MELAMPYRUM
sylvaticum.
ANTIRRHINUM
arvense.
DRABA
stellata.
THLASPI
perfoliatum
montanum.
DENTARIA
bulbefera.

CARDAMINE
bellidifolia.
SISYMBRIUM
Irio.
BRASSICA
campestris.
SONCHUS
canadensis.
LACTUCA
saligna.
LEONTODON
hirtum.
HIERACIUM
Taraxaci.
Auricula.
prenanthoides
molle.
sylvaticum.
SERRATULA
alpina.
ARTEMISIA
cærulescens.
GNAPHALIUM
gallicum.
sylvaticum.
arvense.
ERIGERON
alpinum.
SENECIO
sylvaticus.
SOLIDAGO
cambrica.
lapponica.
ANTHEMIS
maritima.
ASPLENIUM
alternifolium.
lanceolatum.
POLYPODIUM
ilvense.
arvonicum.
dentatum.
spinulosum.
trifidum.
rhœticum.

Esteemed Friend

Darlington 12/5th mo/98

Agreeable to request I send thee the Catalogue of our rarer Plants & list of my desiderata — Please to inform me if thou recd some time ago a Packet sent by Jas Dickson — a small Packet containing a Number of Eng. Bot. & Prices Catalogues & a Letter, as I have heard nothing from thee since, was afraid J.D. had mislaid it — & at the same time I requested to know whether the Robus vaccinium was one of the lost Plants — I can get it again when in flower (wch will not be Conv.t to send with some other things if desired — I have got plenty of Sent. vernus — wch I have laid down to dry — If my Friend Harriman has not sent as many as are wanted, I will readily send more specimens — If the second part of the second Vol. of Martins Millers Dicts. be out I will thank thee to send it & also what numbers of thy Fungi (if any are publish since the last thou sent me) when any spare Desid. will be thankfully rec.d by — Thy obliged Friend

Wm. Hoyle of Manchester has sent to Jas Dickson to send me a Packet about the 28th or 29th inst. if any thing is sent to Darlington I will forward it to Stockton — Mr Hoyle's address is Mosley St. Manchester — Dickson lives in Covent Garden [illegible] Market — The Packet may therefore be left at Dickson's shop — I have sent the Catalogue of Plants I want to Dickson

The Nathaniel John Winch (1768-1838) letters project commenced in November, 1984 (Davies [sic] & Leathart, 1986:29-30) and is now completed. Winch edited the Upper Teesdale records for *The Botanist's Guide through the Counties of Northumberland and Durham*, Winch *et al.*, 1805, 1807. The project involved computer cataloguing the eight volumes of Winch's correspondence in the library of the Linnean Society of London. Whilst it has certainly proved useful, it would have been even more so had the cataloguing been done by a qualified person and not, as I understand, by a Youth Training Scheme placement. I appreciate that finance was the problem.

In 1978 Cambridge University Library purchased from a book shop in Bishop's Stortford, Hertfordshire, twenty-six letters addressed to Edward Robson (A. W. Legg, pers. comm.). Given all these developments (which I was unaware of when I started), it will be evident that this research was just "waiting to happen."

Before concluding this introduction, it is necessary to address the following question: what was the significance of the floristic recognition of Upper Teesdale? ——— Upper Teesdale became recognised floristically when it was realised that it had an unusually large number of rare plants. Baker in Baker and Tate (1868:103) states: "There is probably no piece of ground in Britain that produces so many rare plants within a limited space as Widdy bank Fell." Of course, the question then arose as to how this situation had come about. This became the subject of more intensive study mainly in the present century (Godwin and Walters, 1967:348).[5] A comparison of the contemporary British flora with that of continental Europe showed that no fewer than seven phytogeographical elements are represented in the "Teesdale assemblage" of plants. Matthews (1955) recognises twelve such elements in the British flora. The "Teesdale assemblage" is made up of plants each

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[4] In the manuscript of this paper Davis incorrectly attributed the discovery of " many " of the Teesdale rarities to Backhouse Snr. and his son, James Backhouse (1825-1890) Jnr.

[5] An early study in plant distribution in the British Isles was Turner and Dillwyn's: *The Botanist's Guide through England and Wales*, 1805. Turner and Dillwyn was not a flora but it includes an index to all the sites given for each plant included.

with some particular phytogeographical interest (Bradshaw,1970:142). To give just a few examples from Bradshaw (1970:142): *Gentiana verna* L. is a member of the alpine element; *Bartsia alpina* L., *Dryas octopetala* L., *Kobresia simpliciuscula* (Wahlenb.) MacKenzie, and *Tofieldia pusilla* (Michaux) Pers. are members of the arctic-alpine element; *Armeria maritima* (Miller) Willd. subsp. *maritima* is a member of the oceanic northern element; *Potentilla fruticosa* L. is a member of the northern montane element; *Sedum villosum* L. is a member of the continental northern element, and *Helianthemum canum* (L.) Baumg. subsp. *levigatum* M. Proctor is a member of the continental southern element.[6] Bradshaw (1970:142) assigns fifty members of the "Teesdale assemblage" (mainly flowering plants) to their phytogeographical elements. Pigott (1956: 580-582) deals with one hundred and fifty-six of the "Teesdale rarities" (*q. v.*) (seventy-eight flowering plants (plus approximately thirty unspecified *Hieracium* species) and ferns, and seventy-eight mosses and macro-lichens).[7] Turner (1978:88) inevitably poses the question: "Why should plants with such widely different geographical ranges occur together within so small an area as Upper Teesdale?". She then proceeds to answer it. About 1935 the growth of quaternary studies, which involved the identification of plant remains, for example, distinctive pollen grains, in late-glacial (15,000-10,000 years old) deposits, showed that nearly all the rare Teesdale plants grew in the late-glacial period elsewhere in Britain and in lowland continental Europe (Godwin and Walters, 1967:348-349). Godwin (1949) first put forward the idea that the Teesdale flora is a relict one from late-glacial times. This idea has never been seriously challenged, although the evidence has not been watertight until recently. It was necessary to find: "traces of the rare plants from *local* [my italics] [to Upper Teesdale] peat deposits dating from the whole of the last

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[6] According to Bradshaw (1970:142) no plants in the arctic/sub-arctic element were discovered in the period covered by this research.

10,000 years" (Turner,1978:89). This has been done (Turner, 1978:90-101), proving that the flora is indeed a relict late-glacial one. The members of the "Teesdale assemblage" were widespread all over Britain 15,000 to 10,000 years ago as part of the varied late-glacial vegetation (Turner,1978:89). The spread of forest and acid bog over a period of climatic improvement have been the two main changes during the last 10,000 years or so (Godwin and Walters, 1967:349), these having forced the late-glacial flora to retreat into refuges. Another question arises: why did Upper Teesdale become a refuge for the late-glacial flora? The descriptive geology of the nineteenth century had determined that the main outcrops of "sugar limestone" were almost wholly confined to Upper Teesdale. Sugar limestone is permeable to water and produces highly calcareous soils. However, it was as a result of the development of the science of ecology in the present century that the influence of geological and climatic features on vegetation began to be understood (Godwin and Walters, 1967:348). Upper Teesdale has a relatively oceanic upland climate. This, together with the presence of "sugar limestone", "is presumably responsible for the extraordinarily diverse phytogeographical elements associated together" in Upper Teesdale (Godwin and Walters, 1967:350).

There are three other areas in the British Isles which have some of the features of the relict flora of Upper Teesdale. These are the Lizard Peninsula in Cornwall, the Burren region of County Clare in western Ireland (where Rev. Richard Heaton (1601?-1666?) discovered *Gentiana verna*, new to the British Isles), and the Ben Lawers (Breadalbane) range of mountains in the Central Highlands of Scotland (where George Don (1764-1814) discovered *Bartsia alpina*, new to Scotland in 1789

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[7] Both Bradshaw (1970:142) and Pigott (1956:580-581) include plants discovered in Upper Teesdale since the period covered by this research.

(Roger,1986:98)). However, the special features of Upper Teesdale are unique (both within and without the British Isles (Godwin and Walters, 1967:350)).

Before posing the questions which my research seeks to answer, it should be made clear that all existing references to botanical activities in Upper Teesdale in the late eighteenth and early nineteenth centuries are derivative. The consensus amongst these is that most of the Teesdale rarities were discovered by John Binks (1766-1817) (*q.v.*) and the Backhouses. The sources for this consensus are an article on John Binks written by James Backhouse Jnr. in 1884 in *The Naturalist,* based on his late father's recollections, and the Backhouses' own accounts of their plant discoveries in Upper Teesdale from 1842 onwards in the pages of *The Phytologist*. The Backhouses never claimed to have shared in the discovery of *most* of the Teesdale rarities. Both these sources will be discussed. Horsman (1995); Horsman (in prepn.) and Horsman (in press) deal with Ralph Johnson, Ray and Thomas Lawson (1630-1691) and their botanical activities in Teesdale in the seventeenth century, based on primary sources. There are also references to Rev. John Harriman (1760-1831). However, there are no references to William Oliver and Edward Robson. Oliver and Edward Robson have been totally overlooked in the botanical discovery and floristic recognition of Upper Teesdale. My research is based on primary sources, namely, contemporary letters and herbaria. My questions are as follows:

1. To whom is the credit due for discovering the Teesdale rarities?
2. How was the botanical discovery of Upper Teesdale brought about?
3. By what date was the floristic recognition achieved? Is the date significant?
4. What is the significance of the floristic recognition of Upper Teesdale?
5. What do the botanical discovery and floristic recognition of Upper Teesdale reveal about botanising in Linnaean Britain?

It should be made clear that, with one exception, the Teesdale rarities are not confined to Upper Teesdale in the British Isles. However, about half are very rare or rare in the British Isles (Pigott, 1956: 580-581; Stace, 1991). The single exception is *Minuartia stricta* (Sw.) Hiern, the Teesdale Sandwort, which is only to be found on Widdybank Fell in the British Isles. It was first found here by a party which included James Backhouse Snr. (1794-1869) and James Backhouse Jnr. (1825-1890) on 29 June, 1844. Previously it had only been known as a native of Lapland (Horsman, 1990: 89-90).[8] The Teesdale rarities comprise the " Teesdale assemblage " of plants of some phytogeographical interest.

The question of who discovered the Teesdale rarities in Upper Teesdale is a major theme of this study. The proper assignment of credit for a plant discovery can be a contentious matter, as will become evident later. What constitutes a discovery in this context? In my opinion the distinction has to be drawn between someone who simply *finds* a plant and brings it under notice, and someone who finds a plant and appreciates the significance of the find. He may recognise that it is something unusual and seek expert help, or, if he is familiar with the plant, he will know that his find is significant because he knows the distribution of the plant. A find is made by chance; one works for a discovery. A discovery implies knowledge. It has to be earned, whereas to have simply found a plant is a casual event. *The New Shorter Oxford English Dictionary* defines discovery as: "The action or an act of finding or becoming aware of for the first time;.." The finder differs from the discoverer in that he is unaware that he has found the plant for the first time (in a vice-county etc.). The former found the plant, the latter discovered it. I have been studying the distribution of the scarce plant *Spiranthes romanzoffiana* Cham. in Scotland for the last twelve

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[8] Seeds of what is probably *M. stricta* have been identified from late-glacial deposits in County Louth, Ireland (Bradshaw, Clark and Turner in Bradshaw, 1976:44).

years. If I find a new site, it is a discovery, so much so that officialdom expects to be informed of the record. [9]Having said all this, the official record of a find should certainly include the name of the finder. Many finders become discoverers!

The nomenclature followed is that of Stace (1991).

[9] As a result of my studies, *S. romanzoffiana* has been downgraded from a " Red Data Book " species to a " scarce " species in Britain.

CHAPTER 1

THE BACKHOUSES AND JOHN BINKS

There are two principle misconceptions about who discovered most of the "Teesdale rarities".[1] The first is easily shown to be incorrect and is, therefore, dealt with first.

The names of the Backhouses, James Backhouse Senior (1794-1869) and his son, James Backhouse Junior (1825-1890), have become synonymous with Upper Teesdale, so much so that some authors have assumed that they discovered **many, even all**, of the "Teesdale rarities".[2] It must be pointed out, however, that neither ever made such a claim. How then did they acquire this reputation? It came about primarily through the contemporary accounts by the Backhouses of their botanising excursions in Upper Teesdale from the year 1842 onwards (Backhouse Jnr., 1884:11; Backhouse and Backhouse Jnr., 1843-44:893) in the pages of *The Phytologist* (Backhouse and Backhouse Jnr., 1843-44:892-895; Backhouse Jnr., 1843-44:1065-1069, 1128; 1846: 579-580; 1847: 1046-1047; 1852: 606; 1853:804-805). As will be discussed later, F. J. Hanbury's (1890) obituary of Backhouse Snr. may also have confused the issue.

The frequency with which the Backhouses visited Upper Teesdale was such that "...the High Force Hotel, the principal hostelry in the dale, reserved for them a room still known as "Mr. Backhouse's room" " (Davis, 1989: 256). They botanised in the Lake District, the Yorkshire Dales, Scotland, Ireland and North Wales (Hanbury, 1890:354-355). However, Upper Teesdale was Backhouse Snr.'s "...favourite district for a holiday" (Baker,1869:56), no doubt because alpine plants were Backhouse

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[1] This is how Backhouse Jnr. (1884:10) describes the rare plants of Upper Teesdale.

[2] I was asked by Peter Davis to comment on the manuscript of his paper: *James Backhouse* [Snr.] *of York (1794-1869): missionary, traveller and botanist* (Davis, 1989). He stated of James Backhouse (1794-1869) in the introduction that he " discovered *many* [my italics] of the rare plants of Upper

Snr.'s "...special delight..." and Upper Teesdale probably had "a greater number of interesting alpine plants...gathered together within a small space than anywhere else in Britain,.." The Backhouses lived in York, from where Upper Teesdale was "...easy of access..." (Baker,1869:55-56). Backhouse Snr.'s sister, Sarah Backhouse (1803-1877) said that "it was mainly to the powerful stimulus which the rich alpine flora of Teesdale offered to the explorer, that James Backhouse [Snr.'s] life-long love of botany was attributable" (Backhouse, Sarah, 1870:5).Backhouse Snr. first visited Upper Teesdale in 1810 [3] (Backhouse Jnr., 1884:10; Hanbury, 1890:353).

Backhouse Jnr. "...gained the reputation in his day of having the foremost knowledge in Britain of the Scottish mountain flora" (Ratcliffe, 1977:35). His familiarity with the flora of North Wales is keenly illustrated by his search for the Killarney fern, being so careful "...that over many miles of country his knowledge extended to every stream" (Hanbury,1890:355). However, despite his great familiarity with the alpine floras of both Scotland and North Wales, Charles C. Babington (1808-1895), the foremost authority in his day on the British flora (Allen,1986:9), wrote to Backhouse Jnr. thus: "...[the Teesdale district] seems to be a preserve of yours; you have found so many interesting plants there..."

The most important botanical discoveries made by the Backhouses in Upper Teesdale are discussed in my paper: *Some Backhouse Discoveries in Upper Teesdale* (Horsman, 1990). These included *Polygala amarella* Crantz and *Viola rupestris* Schmidt, both new to the British Isles, and *Myosotis alpestris* F.W.Schmidt, a second record for the British Isles, the first having been made far away on Ben Lawers in Scotland. They were also intimately involved in the discovery of *Minuartia stricta*

Teesdale with his son, James (1825-1890)..." I believe that Davis had been misled by F. J. Hanbury's obituary of James Backhouse Snr., which I discuss later.

[3] There are a number of herbarium sheets of gatherings made by Backhouse Snr. in Upper Teesdale in 1810 in the Backhouse herbarium at The Royal Botanic Garden, Edinburgh. There are no such earlier gatherings.

(Swartz) Hiern, new to the British Isles, in Upper Teesdale. These discoveries were reported in *The Phytologist*. When discovered by the Backhouses in the mid - nineteenth century these were all difficult taxa which they had to send to the leading British botanists of the day for identification (Horsman, 1990). That the majority of the "Teesdale rarities" had been found by 1805, when Backhouse Snr.was only eleven years old, is clear from the first volume of *The Botanist's Guide through the Counties of Northumberland and Durham* (hereinafter *The Botanist's Guide*) published in that year and edited by Nathaniel J. Winch (1768-1838), John Thornhill (1760-1826) and Richard Waugh (d. 1806).That virtually all the conspicuous vascular plants had been recognised in Upper Teesdale by 1805 begs the question: who discovered most of the "Teesdale rarities"? a principle theme of this research. Most of the less conspicuous vascular plants of Upper Teesdale were discovered in the first half of the nineteenth century (Godwin and Walters, 1967:348), after Linnaeus's artificial system of plant classification had been abandoned in favour of a natural one.

I want now to turn to the second misconception about who discovered most of the "Teesdale rarities". This is that it was John Binks (1766-1817) (*q.v.*), a lead miner of Middleton-in-Teesdale. In demonstrating that this is indeed a misconception, the state of botanising in the British Isles at the end of the eighteenth century will become evident. It was James Backhouse Jnr. who first published this story about Binks, in a paper he wrote in 1884 entitled *Teesdale botany: historical and personal recollections* (hereinafter *Historical Recollections)* (Backhouse,1884:10-13). This is the principal source for Binks, and that part of the *Historical Recollections* dealing with Binks is, therefore, reproduced here:

> The original discoverer of most of the botanical rarities of Upper Teesdale was John Binks. He was a miner who worked in the lead mines near Middleton in Teesdale in the present century. Though in humble life, Binks was an "observant and intelligent man," of "gentlemanly appearance," apparently "above his station." He was described as "like a little smart French(!) doctor" (or in words to that effect), with a delicately formed and highly intellectual face! utterly unlike a working miner." Owing to the unhealthiness of the occupation, four days only in the

week were devoted to mining; the remaining two being taken advantage of for recreation, and for obtaining from the adjacent hills any plants that "the druggists wanted," by which a slight addition could be made to his scanty income.

Among these plants, I believe, were the Rose-root (*Sedum Rhodiola*), the Common Juniper, and the "Bear Berry" (*Arctostaphylos uva-ursi*).The latter he found abundantly on Cronckley Fell.

John Binks loved a good ramble right well, and his powers of endurance were not small. Living in the most frugal way, he could "rough it" with a pleasure known to comparatively few.

He it was who first found and brought under notice

Potentilla fruticosa L.
Gentiana verna L.
Arctostaphylos Uva-ursi [L.] Spr.
Saxifraga Hirculus L.
Helianthemum canum [L.] Dun.
Vaccinium uliginosum L.
Bartsia alpina L.
Juncus triglumis L.
Dryas octopetala L.
Malaxis paludosa L.

and the other "Teesdale rarities" which became known to the botanical world previous to the year 1820.

Binks brought down his treasured discoveries to a clergyman and to a "doctor", both of whom resided at Middleton (or Barnard Castle?). These gentlemen sent up the plants , so received, to Sir Jas. E. Smith, and (I have always understood) "got the personal credit" of the discoveries by so doing.

When my father was young, his health was very delicate: so much so that it seemed questionable whether he would ever reach manhood. The fine air of Teesdale was recommended for him, and he was consequently located for a time, in 1810, with a farmer named Applegarth, at Sledwick, near Barnard Castle. His attention had already been turned to botanical subjects by his elder brother, and by several of his relatives at Darlington and Sunderland; so that the moorland region of Upper Teesdale offered an attraction to him in a double sense. Casually hearing of John Binks and his love of botany, my father "borrowed John Applegarth's little black pony," and rode up to the Middleton lead mine to seek him. A mutual arrangement was soon entered into, and many a fine and wearying ramble they had together; beginning gradually at first, and extending their range as my father's strength grew stronger.

There was no "High Force Hotel" then! and no road up the valley where it now exists, only a narrow moorland lane or track, passing along the northern ridge from Middleton to a farm five or six miles up the valley, called Moor Riggs House, which still exists. So that a journey in that day "round Micklefell," *taken from Middleton, was "no trifle,"* especially when the weather was rough. During these trips John Binks showed his young companion, in addition to the plants already named, *Epilobium alsinifolium, Saxifraga stellaris*, and several interesting plants, if I may judge from the dates attached to these specimens.

Many years afterwards, when the first figure of *Woodsia* was published, from a specimen found in Scotland, my father instantly recognised it as a fern which he had seen in Teesdale. His botanical friends and relatives "did not believe it," but he declared that it was "certainly there," and that he would "go and fetch it." He did so; and I possess the specimen-a fine example of *Woodsia ilvensis* R.Br., with several fronds (one of which is 3½ inches long)-having the words attached, in his own handwriting:– "Foot of Cauldron Snout, Teesdale, 1821, first found there." *Polystichum Lonchitis* Roth. was apparently gathered about the same time.

What were Backhouse Jnr.'s sources for these assertions? In the period from 1866 until his death on 20 January, 1869, Backhouse Snr. wrote a manuscript autobiography of 219 pages entitled *Recollections of Past Life.* This manuscript has taken me several years to find. I eventually succeeded in tracing it to The Mitchell

Library of the State Library of New South Wales, Sydney, Australia.[4] Much to my disappointment, there are almost no references to botany in his *Recollections of Past Life* [5] and certainly no references to any of his visits to Upper Teesdale. In the Preface to her *Memoir* of her brother, Sarah Backhouse (1870) states: "THE following brief Memoir of James Backhouse has been chiefly compiled from Memoranda, most of which were revised by himself within a few years of his decease. Some notices of his spiritual condition were recorded at a more recent date..." It is now evident to me that Sarah's reference to "Some notices of his spiritual condition..." is a reference to Backhouse Snr.'s *Recollections of Past Life*. In that these were his *spiritual* recollections it is hardly surprising that, effectively, they contain no botany. However, one section is of interest in the present context:

> In the study of botany, as well as in other things, I found it necessary to keep "to the limitations of the Spirit of Truth," lest these things should gain an undue place in my mind, and become as idols, drawing my attention from that Love and service to God which was needful to my growth in grace, and due from me to the Author of all the mercies I enjoyed." [6]

Both Backhouses were Quakers. Indeed, they were related to the first Quaker botanist, Thomas Lawson (1630-1691) [7] who knew something of the flora of Teesdale through Ralph Johnson (1629-1695) (Horsman, 1995:160,164; Horsman, in prepn.). The detail in Backhouse Snr.'s *Recollections* is such that he must have kept journals. As a Quaker, Backhouse Snr. would indeed have kept a spiritual journal

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[4] Ref. CY REEL 3371. CALL NO. ML B729. The manuscript is catalogued under: "Backhouse, James - *Recollections of Past Life*, [1866-68]." If Backhouse Snr. botanised at all after 1865, it may have been just of a local nature (Horsman, 1990:92). The last entry in his *Recollections of Past Life* is dated 7 December, 1868.

[5] The only specific botanical reference is on page 180 where he refers to finding *Carex ustulata* in Norway.

[6] Page 32: see note 1/4 above.

[7] The following connection has not been previously recognised. Thomas Lawson's grand-daughter, Margaret Ayrey (1695-1772), by his daughter, Ruth's, second marriage, married John Backhouse (1692-1739). John's brother, William (1696-1761), had a son, James (1721-1798) who moved from Over Kellet near Carnforth in Lancashire to Darlington. He had a son, James (1757-1804), who also had a son, James Backhouse Snr. (1794-1869) (Whittaker, 1986; Foster, 1894). Thus, Backhouse Snr.'s great-grandfather's brother married Thomas Lawson's grand-daughter. Put another way, Thomas Lawson's grand-daughter married Backhouse Snr.'s great-grandfather's brother. All were Quakers. Inter-marriage amongst Quakers was not, of course, unusual.

throughout his life (M.Thomas, pers. comm.). Backhouse Snr. describes two visits to Norway in his *Recollections.* On both occasions he kept a journal.[8] Similarly, whilst Backhouse Snr. was abroad on missionary work between 1831 and 1841, during which time he visited Australia, Mauritius and South Africa, he kept journals (Baker, 1869:53). As a botanist travelling widely in the British Isles, there can be little doubt that he kept a record of his observations, in the form of a series of journals. It is greatly to be regretted that these appear to be lost. I believe that these botanical journals constituted part of the "...Memoranda, most of which were revised by himself within a few years of his decease" [9] that Sarah Backhouse used to compile her *Memoir* of her brother. In particular, I believe they were the source of Sarah's (brief) references to Upper Teesdale and John Binks, which will be discussed later.

Hanbury (1890:353-354), in his obituary of Backhouse Jnr., refers to "...A paper in the handwriting of the late Mr. Backhouse [Jnr. which] has been placed in my hands, which gives in a rough chronological order the dates of their [Backhouse Snr. & Jnr.] journeys either alone or together, and the more important botanical **discoveries** [my emphasis] which they made." Again, this paper appears to be lost. Hanbury states that "...Though too long to quote at length, it is of sufficient interest to justify me in inserting the following brief summary." It is certainly of sufficient interest to me for me to quote Hanbury's summary of Backhouse Jnr.'s account of his father's botanical activities before he was born:

> The paper begins with a reference to a visit by James Backhouse, sen., to Castle Eden Dene in 1803, where he found *Cypripedium Calceolus* L. From this date to the year 1842 all the notes refer exclusively to his work, chiefly in Teesdale, which he first visited in 1810. The more noteworthy plants there **found** [my emphasis] by him were *Helianthemum marifolium* Mill, var. *vineale* Pers. [*H. canum* (L.) Baumg. ssp. *levigatum* M. Proctor], *Arenaria verna* L. [*Minuartia verna* (L.) Hiern], *Dryas octopetala* L., *Potentilla fruticosa* L., *Saxifraga Hirculus* L. (Baulderdale), *Sedum villosum* L., *Epilobium alsinifolium* Vill., *Gentiana verna* L., and

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[8] Pp. 178 & 192: see note 1/4 above.

[9] I believe that Backhouse Snr. may similarly have annotated some of his Upper Teesdale herbarium sheets within a few years of his death. However, I have not examined enough of the original sheets to come to a conclusion.

Woodsia ilvensis R.Br. [*Woodsia ilvensis* (L.) R.Br.], which he first found [that is, **discovered**] in 1821...

The remainder of Hanbury's summary is devoted to the joint botanical discoveries made by the Backhouses from 1842 to 1865 [10] inclusive, and by Backhouse Jnr. from 1866 to 1871. Hanbury prefaces his summary of Backhouse's paper with the following comment: "Their [Backhouse Snr. and Jnr.] joint labour in the **exploration** [my emphasis] of the remarkable flora of Teesdale is known to all English Botanists."

From where did Backhouse Jnr. get the detailed accounts of his father's botanical activities up to and including 1821? His father's talk and herbarium will be discussed shortly. It will be evident that I believe his primary source was his father's botanical journals. His father had summarised his spiritual journals in his *Recollections*. I believe the paper summarised by Hanbury was Backhouse Jnr.'s summary of his father's botanical journals, at least until 1821. From the year 1842 onwards Backhouse Jnr. would also have his own botanical journals to draw on. Why did Backhouse Jnr. prepare such a summary? It is significant that the summary ends in 1871, shortly after Sarah's *Memoir* of Backhouse Snr. was published in 1870. I think Backhouse Jnr. prepared this botanical summary to complement his father's **spiritual** *Recollections*. He held his father in such high esteem that he felt that this important aspect of his life should not be overlooked.

During Binks's lifetime Backhouse Snr. only visited Upper Teesdale in 1810, when he was only sixteen or seventeen, and 1811.[11] Referring back to Backhouse Jnr.'s *Historical Recollections* of Binks reproduced above, in particular the first paragraph, the way in which Binks is described is hardly that of a 16 to 18 year old (the quotation marks will be discussed later). I suggest that the description came from Backhouse Snr.'s botanical journals which he revised within a few years of his death.

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[10] This would seem to confirm that Backhouse Snr.'s botanising came to an end in 1865. See note 1/4 above.

It occurs to me that, following Backhouse Snr.'s death in 1869, Sarah and Backhouse Jnr. may have jointly decided that she would prepare a spiritual account of her brother's life and he an account of his father's botanical activities, both for publication. Sarah certainly quotes very extensively from her father's *Recollections of Past Life* in her *Memoir*. The question arises as to why, unlike Sarah's spiritual account, Backhouse Jnr.'s botanical account was never published? There is evidence, which I will deal with later, which suggests that Backhouse Jnr. became reluctant to publish, despite being pressed, because he felt it indiscreet to put into the public domain details of the injustice which his father believed Binks had suffered at the hands of The Rev. John Harriman (1760-1831) (*q.v.*) and William Oliver (1760-1816) (*q.v.*). Apparently, Backhouse Jnr. was unwilling to edit his father's botanical writings.

On page five of Sarah's *Memoir* we read , very briefly, of Upper Teesdale and John Binks thus:

> ...It was during this period of feeble health, and whilst seeking the outdoor employment which it rendered necessary, that J. B.'s attention was drawn to the study of Botany.[12] This pursuit was encouraged by *several of his relatives* who took a warm interest in various branches of Natural History...Invited to stay a few weeks [in 1810], for the benefit of his health, with some kind friends who resided at the old hall at Sledwick, near Barnard Castle, he found frequent opportunities for visiting this district [Upper Teesdale]. Upper Teesdale was then a wild and almost trackless region, and many a *weary* mile the young botanist wandered over dreary fell and moorland in pursuit of his favourite study, spurred on from time to time by the sight of some rarity which beguiled the tedium of the way. These excursions were *frequently* taken in company with John Binks, *an intelligent man,* whose health, impaired by working in the noxious air of the lead mines, alike needed the invigorating influence of the pure mountain breezes; and to the *penetrating eyes* and *persevering efforts* of these joint explorers, many of those discoveries are due , which have given to the flora of Teesdale an interest, which, in England, is perhaps without parallel. Nor, doubtless, was the training these often repeated rambles afforded, without effect, in preparing for long and arduous journeys over still wilder regions in far distant lands. [All italics mine].

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[11] Undated letter from Backhouse Snr. to Winch, received by him on 12 August, 1811. Ref: W2.118.
[12] This is inaccurate. Hanbury (1890:353) indicates that Backhouse Snr. had an interest in botany as early as 1803, and there is a Backhouse Snr. sheet of *Galium boreale* L. in the Backhouse Herbarium at the Royal Botanic Garden, Edinburgh, dated 1808. Backhouse Snr. first took up the study of botany when his brother, Nathan's (1788-1805), herbarium first fell into his hands (Davis, 1989:247).

This material does not appear in the *Recollections*. I am grateful to P.S.Davis (pers. comm.) for drawing my attention to the above extract by informing me that the quotations in Backhouse Jnr.'s *Historical Recollections* are reproduced in the above extract. I have compared the two texts carefully and those parts I have italicised above are indeed also to be found in Backhouse Jnr.'s *Historical Recollections*. It would seem reasonable to conclude that Sarah also had sight of her brother's revised botanical journals. She attributes his life-long love of botany "...mainly to the powerful stimulus which the rich alpine flora of [Upper] Teesdale offered to the explorer,..." (S. Backhouse, 1870:5). Thus, even in a spiritual work, she felt it necessary to make reference to what she believed was the origin of her brother's interest in botany which played such an important part in his life.

To consider now Backhouse Jnr.'s use of quotation marks in his *Historical Recollections*, Clapham (1978:18) comments "The phrases in double inverted commas appear as quotations in *The Phytologist* [sic] and may have been taken from papers of James Backhouse Sr (1795[sic]-1869) or have been remembered from the father's talk." That Backhouse Jnr. made liberal use of quotation marks and underlining (the latter would, of course, appear as italics in his *Historical Recollections*) is clearly illustrated by **plates 4, 5 and 6**. Thus, it is not possible to say with certainty which of the apparent quotations in Backhouse Jnr.'s *Historical Recollections* originated with his father. However, it would seem safe to treat those sections already discussed which are common to both Sarah Backhouse's *Memoir* and Backhouse Jnr.'s *Historical Recollections* as originating with Backhouse Snr.

Additionally, I think that the following quotations about Binks must have come from Backhouse Snr. and not Jnr. by virtue of their very maturity: that he was of "'gentlemanly appearance,' apparently 'above his station'" and "'like a little smart French (!) doctor' (or in words to that effect), with a delicately formed and highly

Plate 4 (two sheets). Letter from James Backhouse Jnr. to John Gilbert Baker dated 6 August, 1884. Botany Department Library, Natural History Museum, London.

Lion Hotel, Settle.

West Bank,
York.
6 - VIII - 84

My dear Friend,

Thy letter has been forwarded to me here, where we are staying 3 or 4 days. The information contained in it respecting Mr. Lawson is new to me & very interesting. I do not think that any of the references to Potentilla fruticosa in Ray's Synopsis. I know the names of "Parson Harrison" (as he was called at Middleton) & of Dr. Oliver also: but thought it better to write in

The Hague 1st May 1815

Sir

Having had the honor of receiving your letter of the 27th ult. I lose no time in acquainting you that I have not received any letter from you since that of the 15th of March, which I answered on the 17th. I am therefore at a loss to know to what letter you refer in your last, unless it be one which I wrote to you on the 6th of April, which I sent by the Messenger Hoare, who was charged with dispatches for Lord Castlereagh, and which I requested might be delivered to you by hand. I hope my letter was not indiscreet, but I have been a good deal pressed ~~for information~~ by more than one or two others by notice parties for information of their Ld.ps.

I have the honor to be Sir
Your most obed.t humble Servant
Jas. Backhouse

Plate 5 (two sheets). Letter from James Backhouse Jnr. to Daniel Oliver dated 12 August, 1884. Botany Department Library, Natural History Museum, London.

Shull, Wm Wolsingham
via Darlington

West Bank,
York.

12 - VIII - 84

My dear Friend

Thy letter has been forwarded to me here, where we are staying for a few weeks.

It was very probably late during last century that Thos Burks (first?) took the Teesdale places to Dr Oliver Wm Harrison. My father first became acquainted with him in 1809 or 1810; but he (Burks) was an "old stager" on the Teesdale hills; though not — I believe — what

is called "die old man"
when he died. But I
imagine his working range
might be from 1794 or 5 to
1812 or 13.

Of course it is quite possible
that my father may have
"imbibed a wrong idea":
but he always gave me to
understand that Banks
knew that he first made
Known the Dees dale Rarities
to these two gentlemen.
No doubt the Potentilla
was an exception — as is
plainly proved by the records
those alluded to.

Yours sincerely
Saml Backhouse

Plate 6 (four sheets). Letter from James Backhouse Jnr. to Sir Joseph Dalton Hooker dated 30 July, 1883. Royal Botanic Gardens, Kew. Directors' correspondence, Vol. 77, doc. 292/93.

[4]

I only hope that we may be able to find some things that will interest you. I was at Kew for abt 5 hours, & afterwards at St Saviours & Argyll's in the Pyrenees. As a rule, I sent home (by post) any promising-looking plants that I did not know, though not the flower.

Hay done is staying at the High Force Hotel in Teesdale just now, & I go to him there.

During the time I may stay I purpose going over to Newmarket Scotch Fell, to show Mr Fredk Milbank a fine station of Saxifraga Hirculus not many miles from his own residence. He has never

West Bank,
York. 30 – VII – 1883

Dear Dr Hooker,

I am grieved to find that a list of plants, (asked for by Mr Smith, in connexion with specimens seen in our grounds, more this ago, by one of your representatives) has remained unattended to up to the present time.

I am sure, however, that you will pardon me when you know the cause! I only returned home in the middle of June, from a compulsory absence of nearly half a year! owing to the dangerous illness of my youngest son. He

203

West Bank.
York.

found it, though the station
is almost "in sight" of Docu-
mergill. It is the only
position in which I have
met with it in the "Teesdale
district."

I was pleased to find, a
year or two ago, a plant of
Woodsia Ilvensis in the old
station where I saw it in
1845 (Stainton): from which
it was supposed to have been
eradicated long years ago.
Happily it is the work of weeks
not even the pen-knife of a
"Fern Eradicator" could not cut
it out. All those that could

[illegible]
[illegible]
The Hypericum hirsicola is as
fine & as abundant as ever
on Hickleyfell, & Arenaria
ciliata is in flower on
Cuddy's Bank Fell (but happily
"very hard to find"!)
Polystichum Lonchitis & Cystop-
teris alpina are yet all right.
So is Saxifraga nivalis, & Polygala
austriaca. So that upper
Teesdale may still be called
fairy rich.
Trusting that your own health,
& that of Lady Hooker, is good
I remain, with kindest regards
Yours very respectfully
Sat. Backhouse

intellectual face! utterly unlike ‘a working miner’”, and that he could “‘rough it’”. Thus, the *personal* description of Binks, as opposed to the description of his activities, can be treated as reliable.

Backhouse Jnr.'s references to his father's herbarium sheets of *Epilobium alsinifolium* **(pl. 7)** and *Saxifraga stellaris* **(pl. 8)** in his *Historical Recollections* make it clear that, at the time of writing (1884), Backhouse Jnr. still possessed his father's herbarium.

Thus, Backhouse Jnr.'s primary sources for his *Historical Recollections* were his father's revised botanical journals, his talk and his herbarium. There is one further relevant Backhouse Snr. source which I wish to discuss. In the Nathaniel Winch correspondence at the Linnean Society of London there are four letters written by Backhouse Snr. in 1811 and 1812. Although Backhouse Jnr. became a FLS in 1885, I have no reason to believe that he ever examined these letters. They are of great interest in themselves and of particular interest in the present context, namely, the critical examination of Backhouse Jnr.'s *Historical Recollections.* Do they corroborate Backhouse Jnr.'s assertions about Binks having discovered all the "Teesdale rarities" found prior to 1820? Backhouse Snr. first wrote to Winch on 25 July, 1811,[13] as follows:

> As I understand that thou art going to publish a flora of Northumberland and Durham I at the request of my Uncle E. Robson and cousin William Backhouse write to give thee an account of the habitats of several rare plants found in this county [Durham] since the publication of the Northumberland and Durham Guide [1805, 1807] (supposing that such information may not be unacceptable). [Some records and notes follow, together with a list] ...
> X *Leontodon palustre*, Middleton Teesdale W. Oliver...
>
> Having little more to say excepting if thou wish for specimens of these plants I shall be glad to furnish thee with as many as I am able which excepting *Serapias grandiflora* and a few marked X I can, I shall be happy in communicating them to thee. [14]

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[13] I have not always used the Quaker convention for dates.
[14] Letter from Backhouse Snr. to Winch dated 20 7mo 1811. Ref: W2.115.

Plate 7. *Epilobium alsinifolium* gathered by James Backhouse Snr. on Meldon Fell in Westmorland in 1810 (specimen no. 1), and on Cronkley Fell in 1811 (specimens no. 2 & 3). Note the number of the entry in *English Botany*. Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Epilobium alsinifolium ○ Bor. 2000

2. 3. Cronkley fell. 1811
1. Moor fell Westmorland 1811

Plate 8. *Saxifraga stellaris* gathered by James Backhouse Snr. at " Middleton Teesdale 1810 ". His son, James Backhouse Jnr., has annotated the sheet: " Gathered on J B. Sen$^{r's}$ first journey into Teesdale. 1810... Bog in the angle of Maize Beck & the Tees. Locality shown to J. B. by John Binks. " Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Saxifraga stellaris L.
subsp. *stellaris*

1954 rev. E. TEMESY

Saxifraga stellaris
L. B. 167

Gathered on J. B. Lees's first journey into Teesdale. 1870.
Middleton Teesdale 1870
Bog in the angle of Maize Beck & the Tees.
Locality shown to J. B. by John Binks.

VC 65

111

As will be demonstrated, W. Oliver is the " "doctor" " referred to by Backhouse Jnr. in his *Historical Recollections*. That *L. palustre* (*Taraxcum palustre* (Lyons) Symons) is in Lightfoot's *Flora Scotica* (1777:432 - as Leontodon taraxcum paludosum) is significant, as will become evident. Backhouse Snr. wrote to Winch again in an undated letter which he received on 12 August, 1811:

> ...*Leontodon palustre*. I examined the Teesdale specimens last week and have no doubt about its being the true plant...[15]

There would seem to be little doubt that as Backhouse Snr. had been unable to send Winch a specimen of *L. palustre*, a rare plant (Smith, 1800:823), Winch had queried this record with him. This had undoubtedly brought him into contact with Oliver. On 13 September, 1811, Backhouse Snr. wrote to Winch again:

> ...Though my cousin W. Backhouse says he saw [a] *Juncus* near Moor Riggs in Teesdale which he took for it [*Juncus acutus* L.] but it was in the winter and he was not certain. I hope to have an opportunity of examining it in a week or two...[16]

and additionally on 23 January, 1812:

> In answer to thy last letter I shall reply that the *Juncus* in Teesdale is nothing more than the common *Juncus conglomeratus* and *diffusus* grown to a larger size than common...[17]

Backhouse Jnr. (1843-44:1069) leaves little doubt that Oliver and Backhouse Snr. went to Moor Riggs together in late September,[18] 1811:

> ...After having spent a considerable time here, we proceeded northward towards a farm-house called Moor Riggs, and on the way thither met with Salix laurina and amygdalina; Pyrola minor was also gathered sparingly. In a moist meadow near a cottage on the top of a neighbouring hill, we rediscovered Vaccinium uliginosum, which had been gathered there thirty years previously, by the late Dr. Oliver and James Backhouse: it is confined to a small space, and we could see no traces of either flower or fruit...

Thus, Backhouse Snr. met Oliver on at least two occasions in 1811. It is not known if they met in 1810. In view of the following, I think it likely. In the herbarium of Edward Robson (1763-1813) (*q.v.*) at Sunderland Museum is a sheet of *Saxifraga*

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[15] See note 1/11 above.
[16] Letter from Backhouse Snr. to Winch dated 13 9mo 1811. Ref: W2.012.
[17] Letter from Backhouse Snr. to Winch dated 23 1mo 1812. Ref: W3.002.
[18] *V. uliginosum* is to be found in berry in August and September.

hirculus L. Robson [19] has written on the sheet: "Nr. Middleton T^e. [Teesdale] from Dr. Oliver X [October]. 1810." There is no evidence that Robson and Oliver had been in touch in recent years (see below). Perhaps Backhouse Snr.'s presence in Upper Teesdale in 1810 prompted Oliver's gift to Robson (together with a notice of the *L. palustre* record?). Robson, who was also a Quaker, was Backhouse Snr.'s uncle.[20] Backhouse Snr. (Baker, 1869:51) and Robson (Horsman, in press) lived in Darlington. Robson had encouraged his nephew ".., when very young, to take an interest in the plants of [his] neighbourhood, and [to form] a herbarium" (Baker, 1869:51). In the Backhouse herbarium at the Royal Botanic Garden at Edinburgh are a number of gatherings made by Backhouse Snr., presumably with Binks, in 1810. Reference has already been made to two of these gatherings. There are also gatherings made in 1811. The data which accompany them indicate that Backhouse Snr. also botanised widely in Upper Teesdale in that year. I presume Binks acted as Backhouse Snr.'s botanical guide in 1811 also, given the latter's state of health. This would mean that Backhouse Snr. botanised with Binks in August, 1810, and August, 1811 because the only opportunity Binks would have, as a lead miner, to spend time with Backhouse Snr. would be in August (see below). Whereas Backhouse Snr. apparently spent a lengthy period of convalescence in Teesdale in 1810, he appears to have made several brief excursions into Upper Teesdale in 1811. An exhaustive search for gatherings made by Backhouse Snr. in Upper Teesdale in 1810 and 1811 has not been made in the Backhouse Herbarium at the Royal Botanic Garden, Edinburgh. However, six such gatherings **(plates 9 - 14)** have been found. I have no doubt that there are more. Three further gatherings are of particular interest **(plates 15 -17)**. In

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[19] Deleted.

[20] On p.31 of Backhouse Snr.'s *Recollections* he refers to Robson thus: "My Uncle Edward Robson, who was a draper in Darlington, was well known as an acute Botanist; and in his garden, he cultivated an extensive variety both of British and Foreign Plants. I spent much time with him in this interesting pursuit; and the knowledge I gained proved of great use in future years."

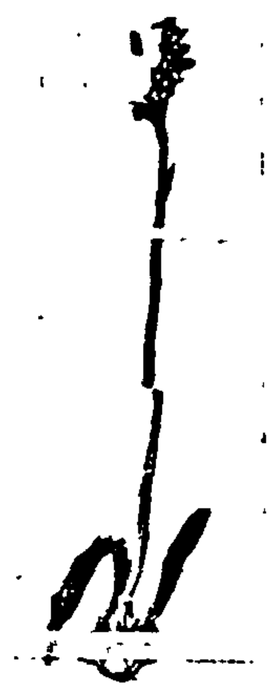
Plate 9. *Juncus triglumis* gathered by James Backhouse Snr. on Meldon Fell in Westmorland in 1810. Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Iuncus triglumis E. B. 899

Meldon fell Westmorland 1810

4.6.67

Plate 10. *Malaxis* (*Hammarbya*) *paludosa* gathered by James Backhouse Snr. at "Sharonberry [sic] near Hamsterly [sic] 1810 ". It is not clear if the annotation " J Binks" has been made by James Backhouse Snr., or his son, James Backhouse Jnr. I think the former, possibly retrospectively. The British Herbarium, Botany Department, Natural History Museum, London.



Malaxis paludosa, Sw.

HERB. A. J. CROSFIELD—Received 1941.
(Presented by Miss E. M. Crosfield.)

Sharonberry near Hamsterley 1910
Co Durham. J Wade

631

Plate 11. *Dryas octopetala* gathered by James Backhouse Snr. on " Cronkley fell Teas [sic] forest 1810 ". Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

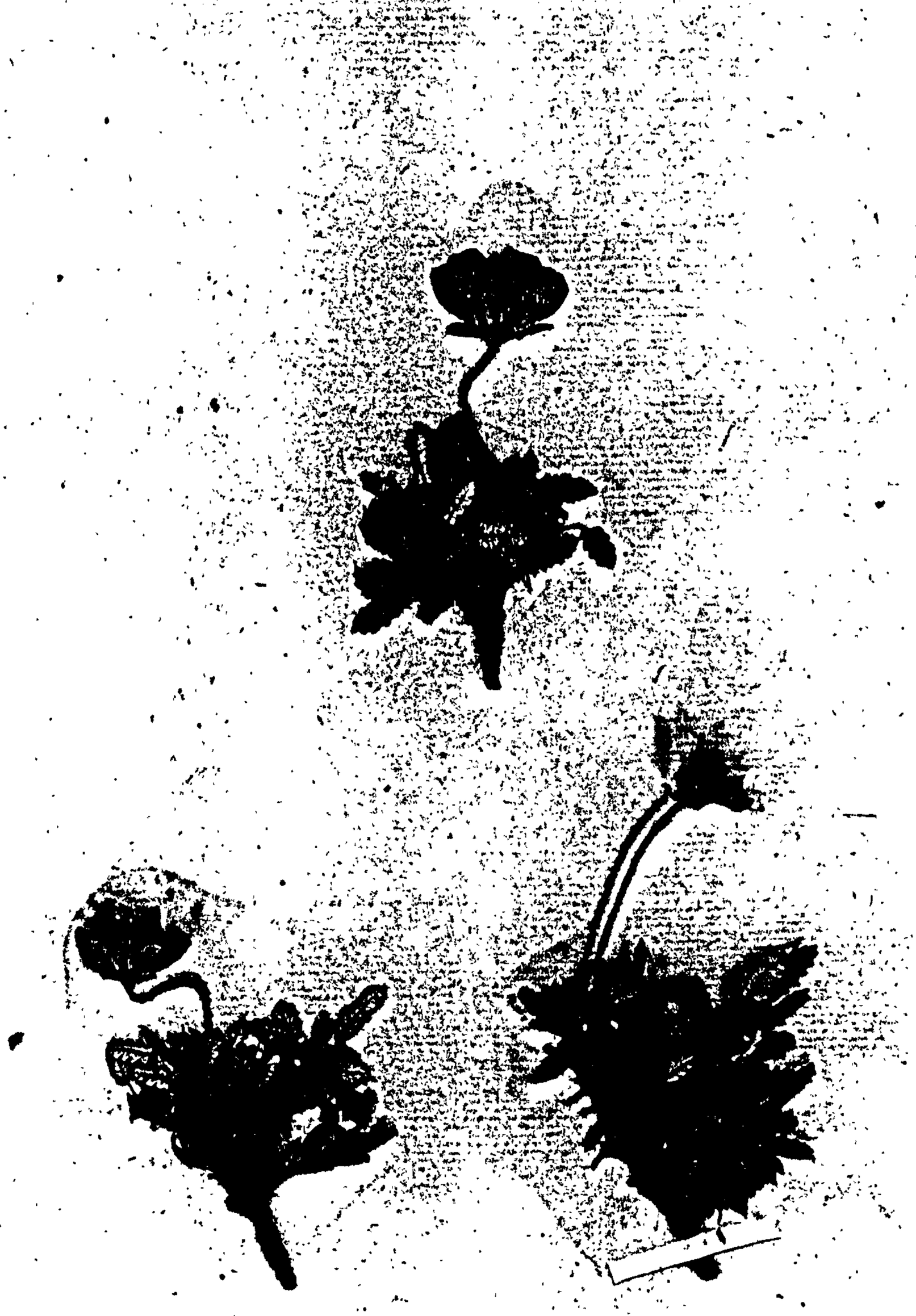


Plate 12. *Potentilla fruticosa* gathered by James Backhouse Snr. at " Middleton Teesdale 1810 ". Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Botrychium fruticosa E.B. 88

Middleton Teesdale 1810

Plate 13. *Pyrus* (*Sorbus*) *aria* gathered by James Backhouse Snr. " near Middleton Teesdale 1810 ". Note the vague locality - actually Winch Bridge. Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Wild Irish 6 B. 1858 near Middleton Teesdale 1870

Plate 14. *Helianthemum canum* gathered on " Cronkley fell 1811 ". Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Helianthemum canum—(Dun.)

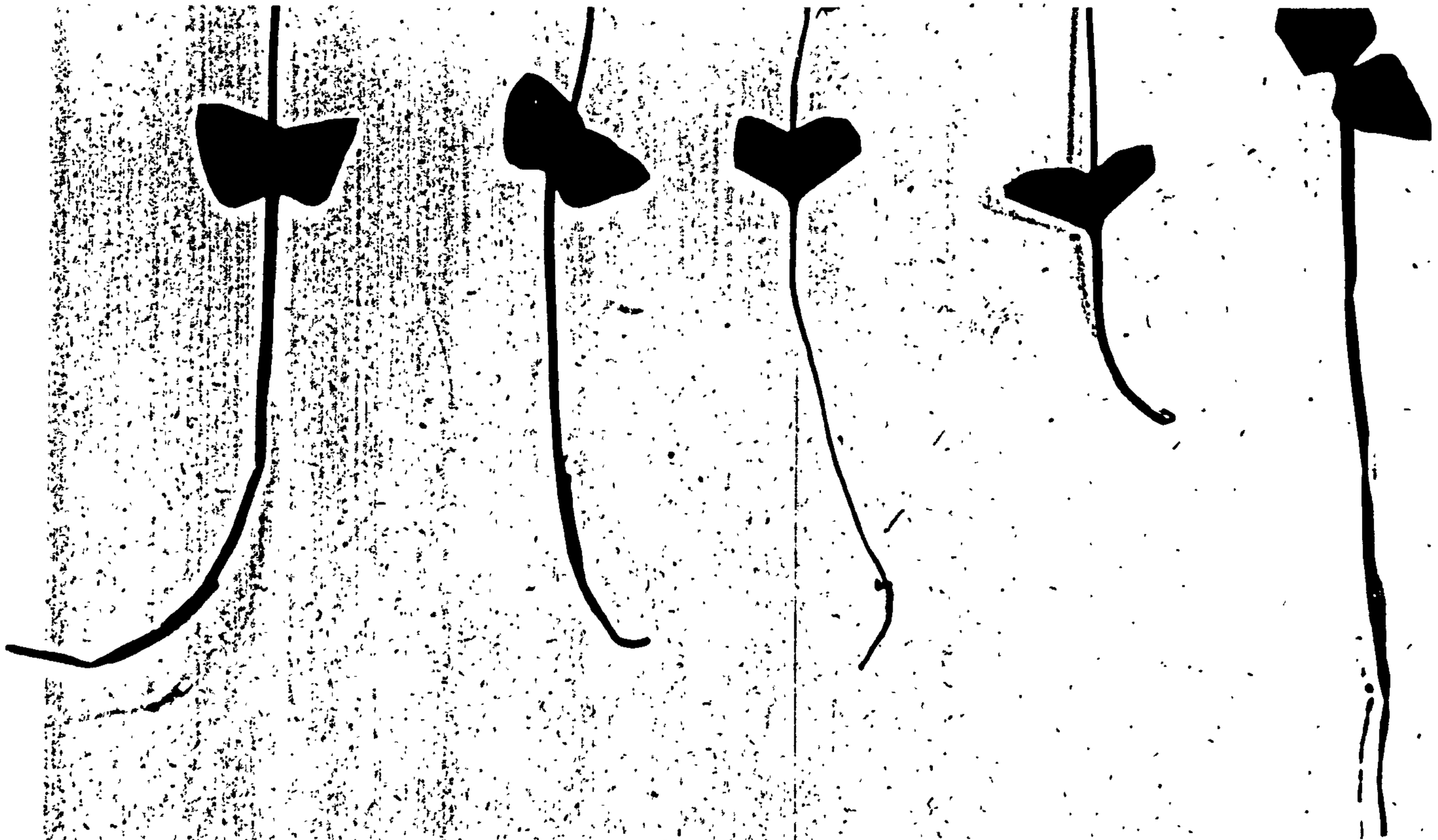
[Cistus marifolius]

[HERB. BACKHOUSE]

[PURCHASED 1908]

[Cronkley fell 1911]

Plate 15. *Listera cordata* gathered by James Backhouse Snr. " On Eggleston fell 1811 ",and given to him by Edward Robson from " near Middleton Teesdale " in 1810 (specimen no. 1). Backhouse Herbarium, Royal Botanic Garden, Edinburgh.



Listera cordata. R. Brown

Ophrys cordata

Eglestone fell 7.5.11

near Middleton Teesdale, E. Robson 1810

Plate 16. *Pseudorchis albida* gathered by James Backhouse Snr. " near Winch Bridge. 1811 " (specimens no. 1 & 3), and given to him by Edward Robson from " High force Tees " in 1810 (specimen no. 2). Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

HERB. BACKHOUSE,
PURCHASED 1908.

1,3 near Winch Bridge, 1911
2 High Force Tees, & Rokeby 1911

Plate 17. *Hippocrepis comosa* gathered by James Backhouse Snr. on Cronkley Fell in 1811 (specimens no. 2 & 3), and given to him by Edward Robson from " Hellbeck [sic] near Brough " in 1810 (specimen no. 1). Backhouse Herbarium, Royal Botanic Garden, Edinburgh.

Helleborus viridis (L.)

1 Hellebore near Ripon 1810
2.3 Cranbrook. Kent 1811
4 Mr Reading. Berkshire. 1843

each case the earliest specimen mounted on the sheet (i.e. the one in the middle) is noted with the following data: the site where it was gathered, followed by "E Robson 1810". I first took this to mean that Robson was with his nephew, Backhouse Snr., in Upper Teesdale in 1810. However, an examination of the herbaria of Edward Robson at Sunderland Museum and John Harriman at the Liverpool Museum shows that they only give a date where the duplicate had been given to them, and this date is the date they received the specimen. This is understandable, as they would normally not know when the specimen had been collected. I am, therefore, satisfied that Robson gave Backhouse Snr. in 1810 duplicates from his own herbarium of the "Teesdale rarities" which Backhouse Snr. and Binks had been unable to find in 1810. Robson had gathered these plants in Upper Teesdale some years previously, as will be discussed later. Backhouse Snr. and Binks' failure to find these plants may, of course, have been simply due to them not having been in flower. Backhouse Snr. would want flowering specimens for his herbarium.

Thus, we know that Backhouse Snr. met Binks in 1810, and very probably in 1811. He also met William Oliver in 1811, and possibly in 1810. He was closely related to Edward Robson. They both lived in Darlington, and they were both Quakers. The only member of the quartet pivotal to the botanical discovery and floristic recognition of Upper Teesdale for whom there is no evidence that Backhouse Snr. ever met is John Harriman. Harriman moved from Eggleston, near Middleton-in-Teesdale, to Gainford, some fourteen miles further down Teesdale, in 1801.[21] He also quit botany in 1806 or 1807.[22]

I now want to consider any contemporary reactions to Backhouse Jnr.'s *Historical Recollections*. This time we are in luck! Two key letters are in the

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[21] Letters from Harriman to Winch dated 21 April, 1801 (ref: W1.022) & 8 July, 1801 (ref: W1.031).
[22] Letter from Harriman to Winch dated 29 March, 1810. Ref: W2.099.

Autograph Collection of the Botany Department Library at the Natural History Museum in London (**plates 4 & 5**). Mike Mullin, then of this Department, showed me these two letters as examples of the handwriting of James Backhouse Jnr! What a stroke of luck, for which I am indebted to Mike Mullin. These letters are clearly Backhouse Jnr.'s replies to two correspondents about his *Historical Recollections.* The envelopes, not unsurprisingly, are lost. The contents of these two letters are such that the determination of the identities of the two correspondents could be most revealing. The dates of the letters are significant. *Historical Recollections* appeared in the August, 1884, edition of *The Naturalist,* the journal of the Yorkshire Naturalists' Union. Therefore, there can be little doubt that both correspondents were either members of the Union, or they had immediate access to the journal, for example by working in an institution which subscribed to it, or had a member of staff who subscribed to it. For the following reasons, I am satisfied that Backhouse Jnr.'s first correspondent was John Gilbert Baker FRS, and the second, Professor Daniel Oliver (1830-1916) FRS. Both were Quakers, both worked at the Royal Botanic Gardens, Kew, together, and both were very knowledgeable about the flora of Upper Teesdale. My reasons for considering that the first correspondent was Baker are as follows:

1. The reply is respectful, which is consistent with the feeling Baker had for Backhouse Jnr.'s father (Baker, 1869). By comparison, the reply to the second correspondent is informal.

2. I believe that the key to the identity of this correspondent is the reference to Thomas Lawson. Baker delivered his Presidential Address to the Yorkshire Naturalists' Union on 4 March, 1884. It will be recalled that Backhouse Jnr.'s *Historical Recollections* appeared in August of that year. Baker's address was entitled "The Fathers of Yorkshire Botany". Thomas Lawson is included. In Baker's opinion, Lawson was "The best botanist of Ray's generation who lived in

the north of England..." (Baker, 1885b: 193). [23] Furthermore in Baker's "Flora of the English Lake District" he includes a "Bibliography of Lakeland Botany" (Baker, 1885b: 7-14). He again deals with Lawson, this time in more detail. That Lawson was the first Quaker botanist no doubt made a profound impression on Baker who, as we have seen, was interested in the history of botanical exploration in England.

3. Given Baker's (1869) relationship with Backhouse Snr. and his familiarity with Upper Teesdale, he would know the names of the "clergyman" and the " 'doctor' " from Backhouse Snr. Baker made a visit to Upper Teesdale in 1853 when he was nineteen years old (Baker, 1853:1048-1053). From his knowledge of Upper Teesdale in 1853, this would appear not to have been his first visit. Baker (1855-56) also suggests that he was a frequent early visitor to Upper Teesdale. In 1854, when Baker was only twenty years old, he and John Nowell (1802-1867) produced " A Supplement to Baines' Flora of Yorkshire". Baker dealt with the flowering plants and ferns. Yorkshire then extended to the southern bank of the River Tees, thereby taking in part of Upper Teesdale, including Cronkley Fell. In 1863, Baker's "North Yorkshire; studies of its botany, geology, climate and physical geography" was published, and in 1868, "A New Flora of Northumberland and Durham", co-authored by Baker and George Ralph Tate (1835-1874), appeared in which Baker edited the County Durham and Tyne-land sections. This was the first flora of Northumberland and Durham since that of Winch of 1831.[24] Baker must have heard about the botanical activities of Harriman and Oliver, and Binks, on his visits to Upper Teesdale. However, as a fellow

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[23] Baker was ignorant of Ralph Johnson. See Horsman (1995).
[24] Winch published "Addenda,.." and "Observations on the preceding Flora" in 1832. In 1836 he published a second "Addenda..."

Quaker, he would follow Backhouse Snr.'s example in being discreet by not publishing anything about the apparent treatment of Binks by Harriman and Oliver.

4. This correspondent was not one of the parties who pressed Backhouse Jnr. "for information of this kind." The only information which we know Backhouse Snr. imparted to Baker about Binks is that which Baker published. It is uncontroversial and is as follows:

   a) *Juncus triglumis* L. was " Planted upon the sugar limestone on Cronkley fell, by J. Binks, of Middleton-in-Teesdale - *J. Backhouse*" (Baker & Nowell, 1854:128). It will be noted that Baker knew this by the age of twenty. Baker first met Backhouse Snr. when he was "...a little boy at school,.." and "...a few years later [he] encouraged [me] in botany..." (Baker, 1869:57).

   b) *Hammarbya paludosa* "...was found by a miner of the name of John Binks, who lived at Middleton-in-Teesdale about fifty years ago, upon the spur of [a] hill upon the Yorkshire side of the High Force,.." (Baker, 1863:186). This reference expands that found in Baker and Nowell (1854:120) which reads "Formerly found opposite the High Force - *J. Backhouse*..."

   c) "In the Tees district there is a well-established station [for *H. paludosa*], first discovered by John Binks about the beginning of the century in a moist hollow on the banks of the Egglesburn near the Manor Gill lead mine on Eglestone Moor" (Baker &Tate,1868:256). No authority is given for this historical information but I am in no doubt that Backhouse Snr. was Baker's source.

Thus, Baker respected Backhouse Snr.'s discretion about Binks and the apparent injustice done to him. More will be said later about Baker's view of Backhouse Jnr.'s claim that Binks discovered all the "Teesdale rarities" found prior to 1820.

To move on to the second correspondent. At twenty, Daniel Oliver was already a friend of Backhouse Jnr.'s (Oliver, 1851:126). He was born in Newcastle upon Tyne (Britten, 1917:89). William Oliver was born in Hawick in the Border Country. There is no evidence to suggest that they were related. However, Daniel's family may have originated in the same area as William's, namely, that of Jedburgh-Hawick (Oliver,1982).

My reasons for thinking Backhouse Jnr.'s second correspondent was Daniel Oliver are as follows. This correspondent *is* pressing for more information, and Backhouse Jnr.'s reply is informal, unlike his reply to Baker. I conclude that this correspondent did not enjoy the same cherished relationship with Backhouse Snr. as Baker did. This was the case with Daniel Oliver. Daniel did ask Backhouse Snr. if he would write to Sir William J. Hooker (1785-1865) on his behalf if he felt he was competent to fill a vacant post of curator of the museum at Kew. This Backhouse Snr. did in a letter dated 27 January, 1858.[25] Oliver took up a post in the Herbarium in February, 1858 (Jackson, 1916-17:54)! Further, Backhouse Jnr. is *apparently* quoting his correspondent in enclosing "'imbibed a wrong idea'" in quotation marks, giving

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[25] Library & Archives, Royal Botanic Gardens, Kew. Ref: Directors' Correspondence Vol. 38, doc. 29. This letter is revealing about both Backhouse Snr. and Daniel Oliver. I am, therefore, transcribing it in full:

> My friend Daniel Oliver Jnr. of Newcastle writes me that through our mutual friend Daniel Hanbury of Plough Court, he has been informed of the curatorship of the museum at the Royal Gardens of Kew being vacant; he also asks me if I think him competent to fill the office to drop thee a line to that effect. I am not aware as to whether he is known to thee personally or not, but probably thou will be acquainted with his name as that of a persevering intelligent botanist. He is also well versed in vegetable physiology: his age will, I think be 25-30: he professes with the Society of Friends; his manners are simple and agreeable and I think him well qualified to occupy such a post. I think it is one which would be very interesting to him and in which he would interest others. I always count it a privilege to have his company either at home or on a botanical turnout; his temper is good, his society agreeable and you will feel confidence in him on account of his good principles.

the impression that his correspondent had been somewhat indiscreet about Backhouse Snr. However, as already explained, this is a misapprehension, given Backhouse Jnr.'s idiosyncratic and liberal use of quotation marks and underlining. Furthermore, as his correspondent is seeking more information, he would hardly suggest, at least at this early stage, that his father had got it wrong.

It is evident from the second letter that Backhouse Jnr.'s correspondent knew the names of the "clergyman" and the " 'doctor' " . There is no reason to believe that he learned them from Backhouse Jnr. From whom then did he learn them? Daniel visited Upper Teesdale in 1847, when he was only seventeen years of age (Oliver, 1847:986) and living in Newcastle upon Tyne. It is not known if this was his first visit. It is worth emphasising that Backhouse Snr. was only sixteen or seventeen when he made his first visit; his son was only fifteen (Baines, 1840:109), and Baker was probably not yet nineteen. Clearly, Upper Teesdale was effectively a very important training ground for some of those who were to become botanists of national standing. Daniel visited Upper Teesdale again in 1849 [26] and 1853 and perhaps as many as three times in between (Oliver, 1854:328-331).

On his 1847 visit Daniel's botanical guide was J. Allison (Oliver, 1847: 986). Jacob Allison (1795-1868), of Cotherstone at the foot of Baldersdale off (lower) Teesdale, was also a Quaker. At one time Cotherstone was called a Quaker village because there were so many living there.[27] Allison was a friend of the Backhouses and had guided them on a long botanical excursion through Upper Teesdale in 1843

(Backhouse & Backhouse Jnr., 1843-44: 894-895). In 1841 Allison had guided

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[26] There are gatherings of *S.hirculus* from Baldersdale and *H. canum* from Cronkley Fell, both made in 1849, in the British Herbarium of the Botany Department at the Natural History Museum in London.

[27] Durham County Record Office (DCRO) ref. Co/PM/8/9

Backhouse Jnr. through Upper Teesdale.[28] His father had returned from his long absence abroad on missionary work in February, 1841 (Davis, 1989:253). It is not known if Backhouse Snr. accompanied his son and Allison on this visit. Allison knew John Bell (*fl.* 1843) of Middleton-in-Teesdale, a botanist and Surveyor to the London (Quaker) Lead Company (Bell, 1843-44:741, Nicholson, 1930:90),[29] which had its Teesdale office centre in Middleton-in Teesdale (Raistrick, 1977:14). Binks also worked for the London (Quaker) Lead Company, at Lodge Sike mine north of Middleton-in-Teesdale.[30] He died in 1817.[31] Given the reputation which Binks now enjoys, I would expect Bell to have at least known something of his botanical activities in the dale. And, given that they were both professional men, one would expect that Bell also knew William Oliver's son, William Oliver Jnr. (1800-1851), also a surgeon in Middleton-in-Teesdale.

Allison was a contemporary of Backhouse Snr. Perhaps they met when Backhouse Snr. visited Upper Teesdale in 1820, 1821 and 1824,[32] his only visits after 1811 and prior to his departure for Australia in 1831. Although there was nearly thirty years difference in their ages, since they were both botanical guides, perhaps Allison and Binks knew each other?

More botanists visited Upper Teesdale following the publication in 1831 of Winch's *Flora of Northumberland and Durham* (hereinafter Winch's *Flora*).

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[28] In the Backhouse Herbarium at the Royal Botanic Garden, Edinburgh, there is a gathering of *G. verna* with the following data: "Whetstone sill n$^{r.}$ Widdy Bank House, west of Middleton in Teesdale. 1841-J.A. Jacob Allison Cotherstone".

[29] Bell published details of a new site he had found for *S. hirculus*, the first in Upper Teesdale, in the October edition of *The Phytologist*. The note is dated August 19, 1843 (Bell, 1843-44:741). On 30 August,1843, the site was visited by the Backhouses, accompanied by Allison (Backhouse Jnr., 1843-44:894).

[30] Report Book (1806-1820) of the London Lead Company pp. 9-13, 83-85, &86-90. Northumberland Record Office ref. NRO. 3410 LLC/40.

[31] Middleton-in-Teesdale burial register, 1813-1844. Durham County Record Office ref. EP/MT 1/23, p.19.

[32] There are several gatherings made by Backhouse Snr. in Upper Teesdale in 1820 (e.g. *Gentiana verna* and *Arbutus uva-ursi*), 1821(e.g. *Woodsia ilvensis* (L.) R.Br.) and 1824 (e.g. *Vaccinium*

Accounts of some of their visits, and the rapacious gatherings they made, appeared in *The Phytologist*, which first appeared 1841. The numbers of botanists visiting Upper Teesdale now warranted the local tourist guides diversifying and finding out where the rare plants grew in order to become botanical guides as well. Previously, guides had been engaged to show tourists the landscape. A favourite day excursion was a round trip from Barnard Castle to High Force (Hill, 1993:71; Andrews, 1936:70-71; Anon., 1813:57,62,65). Eyres (1988:40) points out that "The Napoleonic Wars prevented a generation of British tourists from enjoying the Grand Tour of Europe. It was during these years that appreciation of British landscape crystallised..." John Binks was the pioneer botanical guide of Upper Teesdale. Other documented cases, besides Allison, are Joseph Raine of Baldersdale (King, 1841-43: 113), Thomas Scott, landlord of the High Force Inn (King, 1841-43: 114; Baines, 1840;72), Kit Dent of Cotherstone (Borrer, 1846:425), and the landlord of the Langdon Beck public house (Simpson, 1841-43: 74). Bousfield (1881: 133, 139) refers to the botanical guide Charles Dawson " who has been the greater part of sixty years in the employment of the Raby family. "

In August, 1814, William Robertson (d. *c.* 1848 (Davis, 1988:19)), also of Newcastle upon Tyne, hired Binks as a botanical guide in Upper Teesdale.[33] William Oliver [34]could well have recommended Binks to Robertson.[35] Robertson was a clerk

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uliginosum and *Bartsia alpina*) in the Backhouse Herbarium at the Royal Botanic Garden, Edinburgh.

[33] Robertson's personal, interleaved and copiously annotated copy of *The Botanist's Guide* is in the library of The Hancock Museum, Newcastle upon Tyne. Against *G. verna* Robertson has written: "On Cronkley, Yorks. Pointed out to me by John Binks, Aug^{t} 1814." The entry against *Juncus triglumis* will be discussed in detail later. Herbarium sheets in The Hancock show that Binks collected *J. triglumis* from Meldon Fell, *Hippocrepis comosa* (not in flower!) from Cronkley Fell, *Hammarbya paludosa* from "Egleston Moor", and *S. hirculus* from Baldersdale for Robertson in or just after August, 1814. Robertson's label for *S. hirculus* is charming: ".., where the bogs are yellow with this plant. Mr. Binks". This must have been Binks's description.

[34] Deleted = footnote deleted.

[35] Garland (1813: 95) describes William Oliver as "..; a Gentleman to whom the Writer, with many other wanderers in his vicinity, is indebted for much personal civility and local information."

in the coal trade (Gilbert, 1980: 334) and worked in the Tyne Iron office.[36] He took a particular interest in lichens, mosses and roses. He corresponded with William Borrer (1781-1862) for over thirty years, [37] Borrer describing him as "a very accurate investigator of lichens" (Hooker, 1831: *t.* 2602). His annotated copy of *The Botanist's Guide* (volume 2, published in 1807) contains "...what may be the first reference to the harmful effects of air- pollution on lichens on Tyneside" (Gilbert, 1980: 334). Daniel Oliver was a member of the Tyneside Naturalists' Field Club from 1847 (Davis & Brewer, 1986:235). Perhaps Daniel Oliver and Robertson met?

In these circumstances surely Daniel Oliver must have come to know something about William Oliver, Harriman and Binks and the botanical discovery of Upper Teesdale, apparently such that his curiosity was aroused. He wanted to know more from Backhouse Jnr.

That Baker and Daniel Oliver were, indeed, Backhouse Jnr.'s two correspondents, is further illustrated by the following associations. Daniel Oliver was not a member of the Yorkshire Naturalists' Union. In 1858, as we have seen, Daniel Oliver moved to Kew. In 1864 he became Keeper of the Herbarium and Library (Britten, 1917:90). Sir William Hooker died in 1865 and his son, (later Sir) James Dalton Hooker (1817-1911), took over as Director (Desmond, 1977:318). In 1866 Hooker Jnr. similarly invited Baker to come from Yorkshire and work at Kew. Baker also commenced as an Assistant in the Herbarium (Allen, 1986:75; Desmond, 1977:30). One wonders if Daniel Oliver was instrumental in this?[38] Their careers again mirrored each other when, on Daniel Oliver's retirement in 1890, Baker took over as Keeper of the Herbarium and Library (Desmond, 1977). It is pleasing to note that the last extant photograph of Daniel Oliver, taken in July, 1916, includes Baker (Jackson, 1916-

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[36] Letter from William Brown to Winch dated 26 August, 1822. Ref: W4.186.
[37] See note 1/44 below.

17:57). Further, when Daniel Oliver was no longer able to attend the Isleworth Meeting he held a meeting in his own house with his neighbour, Baker.[39]

I believe that the following is a feasible scenario. Having written his letter to Backhouse Jnr., Baker passed his copy of *The Naturalist* to Daniel Oliver knowing of his friendship with Backhouse Jnr. and his interest in Upper Teesdale. It is likely that they discussed Backhouse Jnr.'s *Historical Recollections*, although Baker would again not be indiscreet. Daniel Oliver then wrote his letter to Backhouse Jnr.

The Backhouses and the Hookers were also associated. Backhouse Snr. began a life-long association with William Hooker when he was working in Norwich from 1813 to 1815 (Horsman, 1990:89; Davis, 1988:12-13). Indeed, Backhouse Snr. wrote to Hooker just before the latter's death on 12 August, 1865 (Horsman, 1990:89). Hooker visited Upper Teesdale in 1817.[40] As his son, Joseph Dalton, was born on 30 June, 1817 (Desmond, 1977:318) and Binks was buried on 10 July, 1817,[41] Binks is unlikely to have acted as his botanical guide. There is no evidence to suggest that Backhouse Snr. accompanied Hooker. Joseph Dalton Hooker was Assistant Director at Kew from 1855 and Director from 1865 until 1885 (Desmond, 1977:318). Backhouse Jnr.'s letters to Hooker Jnr. include detailed references to Upper Teesdale, mirroring those of Backhouse Snr. to Hooker Snr. Not unsurprisingly, both Hookers were interested in the flora of Upper Teesdale.

Thus, from 1866 to 1885 Daniel Oliver, Baker and Hooker Jnr. were all working at Kew, Daniel Oliver and Baker together in the Herbarium. It would not be surprising if all three discussed Backhouse Jnr.'s *Historical Recollections.* I think that Baker and

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[38] In May, 1864, Baker had lost everything in a fire which consumed both his home and business premises in Thirsk, Yorkshire (Allen, 1986:74-75).
[39] *Dictionary of Quaker Biography*. Unpublished, updated entry held in the library of the Religious Society of Friends, London (J. Keith, pers. comm.).
[40] There is a gathering of *Bartsia alpina* in the British Herbarium at the Natural History Museum in London with the label: "Bartsia alpina Middleton [-in-Teesdale] Yorkshire W. J. Hooker. Esq[re] 1817".

possibly Daniel knew that Backhouse Jnr. had exaggerated Binks's role. In connection with *Hieracia,*[42] Raven in Raven and Walters (1984: 23) commented about Backhouse Jnr. that "...his utterances bore a steadily diminishing relation to reality".

That Baker published in 1903 a further paper on the history of botany in England, namely, *Biographical Notes on the Early Botanists of Northumberland and Durham* (Baker, 1903:69-86) is additional evidence of his having been Backhouse Jnr.'s first correspondent. Baker deals with Backhouse Snr. and Jnr. and James Backhouse *fil.* (1861-1945), Backhouse Jnr.'s son who was also a Quaker and the author of "Upper Teesdale Past and Present", published in 1896. He also deals with Harriman (p.79). However, there is no reference to William Oliver. I want to examine in detail Baker's section on Harriman:

> Rev. John Harriman, born 1760, died 1831, was a native of Maryport in Cumberland. He became Rector of Eglestone and Gainford, and botanised all along the Tees from Darlington upwards. He was the first botanist to **collect** [my emphasis]many of the rarer plants of Upper Teesdale, about the year 1793; for instance *Gentiana verna, Tofieldia palustris* [*T. pusilla* (Michaux) Pers.], *Elyna caricina* [*Kobresia simpliciuscula* (Wahlenb.) Mackenzie], *Juncus triglumis, Vaccinium uliginosum, Polystichum Lonchitis,* and *Pyrus aria* [*Sorbus aria* (L.) Crantz], and on the fells over Eglestone *Malaxis* [*Hammarbya*] *paludosa*. The specimens of *Gentiana verna* which were figured in "English Botany" he says were collected for him by a miner named John Binks. He was elected a Fellow of the Linnean Society in 1798. Later he worked hard at Lichens, and corresponded with Acharius[43] and Borrer.[44] The most interesting species he found was *Verrucaria thelostoma,*[45] which is described by Acharius in the second part of Winch's "Botanists' Guide," and is figured by Sowerby in "English Botany," t. 2153. Acharius named after him *Verrucaria Harrimanni.* [46] Figured "English Botany," t.2539. He died at Croft, in Yorkshire, Dec. 3, 1831.

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[41] See note 1/31 above.

[42] Backhouse Jnr. wrote *A Monograph of the British Hieracia* which appeared in 1856.

[43] Erik Acharius (1757-1819) is regarded as the father of lichenology. He was a Swede and a pupil of Linnaeus. He corresponded with Sir James Edward Smith and Dawson Turner, and was a Foreign Member of the Linnean Society of London. His first major published work (of four) was *Lichenographiae suecicae prodromus* which appeared in 1798 (Vitikainen,1976:preface to the reprint of Acharius's *Lichenographia Universalis* (1810); Galloway, 1988:149-150). This was one year after Harriman started studying lichens with William Oliver, who had been studying them for some time.

[44] William Borrer (1781-1862) of Henfield in Sussex had an extensive knowledge of British botany (Desmond,1977:76). He was a leading lichenologist of his day. He corresponded with Acharius, and Dawson Turner referred to his "...profound knowledge of the Family of Lichens"(Hawksworth & Seaward, 1977:10-11). He published with Turner *Specimen of a Lichenographia Britannica,* (1813+) 1839. Acharius named the genus *Borrera* after him.

[45] Now *Thrombium thelestomum* (Ach. ex Harriman) A. L. Sm. (A. Henderson, pers. comm.).

[46] *V. harrimanni* Ach. is apparently a conidial form of *V. hochstetteri*. *V. harrimanni* non Ach. has been subsumed into *Porina chlorotica* (Ach.) Mull. (A. Henderson, pers. comm.).

This is Baker's only reference to Binks in his *Biographical Notes*. Baker's clear contradiction of Backhouse Jnr.'s assertions about Binks in his *Historical Recollections* will be noted. It will also be recalled that Backhouse Jnr. in his letter of 12 August,1884, to Daniel Oliver stated that he imagined Binks's "...working range might be from 1794 or 5 to 1812 or 13." Baker states that Harriman "... was the first botanist to collect many of the rarer plants of Upper Teesdale, about the year 1793;.." That Backhouse Jnr.'s and Baker's dates are virtually the same, but in the former case relate to Binks and in the latter to Harriman, will also be noted. However, there can be no doubt that the original, perhaps oral, source, for the approximate date was Backhouse Snr.

Why did Baker thus credit Harriman? I believe he was influenced by Winch. Of the eight plants Baker gives as examples of rarer plants that Harriman was the first to collect in Upper Teesdale in his *Biographical Notes*, all bar one, namely *Tofieldia pusilla*, are included in *The Botanist's Guide*, and/or Winch's *Flora* on the authority of Harriman. Indeed, under *Schoenus monoicus* (*Kobresia simpliciuscula*) in *The Botanist's Guide* (p.5) it states: "...This plant was pointed out to N.I.W. [Winch] by the Rev. John Harriman, August 25th, 1799" on Widdy Bank and Cronkley Fell. Under *Gentiana verna* in Winch (1831:17), Winch states: "...First pointed out to me in 1799, by the Rev. J. Harriman" in Teesdale Forest. Of *Polystichum Lonchitis*, Winch (1831: 68) states (under a synonym, namely, *Aspidium Lonchitis*) "First found by the Rev. J. Harriman."

Baker was familiar with *The Botanist's Guide* which he thought was "excellent" (Baker, 1885a: 10); Winch's *Flora*, together with the 1832 and 1836 addenda, and Winch's herbarium (Baker &Tate, 1868:107-109). As will become clear, Winch alone edited the Upper Teesdale records for *The Botanist's Guide*. Baker (1885a: 10) described Winch as a "...capital botanist..." Daniel Oliver was also familiar with

Winch's Herbarium (Bell, T., 1859: xx-xxi) and thought Winch "...an excellent local botanist, and author of one of the best of the older Floras - that of the counties of Northumberland and Durham [1831], published in the *Transactions of the Natural History Society of Newcastle*" (Oliver, 1860:195). Baker and Winch shared an interest in plant distribution. Baker comments on Winch's (1825 [1818, 1819]) *An essay on the geographical distribution of plants through the counties of Northumberland, Cumberland and Durham* that ".., for that time, [it showed] a remarkable appreciation of the influences which regulate and modify the distribution of species" (Baker in Baker & Tate, 1868:108). Baker was also an admirer of Hewett Cottrell Watson (1804-1881) (Baker in Watson, 1883:1-12). Watson states in his *The New Botanist's Guide to the Localities of the Rarer Plants of Britain*, dedicated to William J. Hooker, that "Mr. Winch's exertions and different works have made us better aquainted with the botany of the extreme N. of England than we are with that of any other equally extensive portion of the country; and he may fairly claim the credit of having done most to advance the knowledge of local botany" (Watson, 1835:319). Watson corresponded with Winch from 1832 (W7.087).

In *The Botanist's Guide* and Winch's *Flora* are many records with Harriman given as the authority and with which Baker would be familiar. In both these works Winch makes no reference whatsoever to William Oliver, and only one reference to Binks. It will be recalled that this was, coincidentally, exactly the same pattern as in Baker's *Biographical Notes.* The single reference to Binks in Winch's *Flora*, under *Saxifraga hirculus*, reads: "Said to have been first found by John Binks, a miner" (Winch, 1831:28). Backhouse Snr. had told Winch this in 1811 thus "..., first found there [the first site to be found in Baldersdale] by John Binks of Middleton in Teesdale".[47] Baker was also familiar with Harriman's contributions to the sections on Yorkshire,

Cumberland, Westmorland and Durham in Turner and Dillwyn's *The Botanist's Guide through England and Wales*, 1805 (Baker, 1885a: 10 & 199; Baker in Baker & Tate, 1868: 107). It is also clear from his *Biographical Notes* that Baker was familiar with the references to Harriman in the classic *English Botany*. His own familiarity with the published references to Harriman, and his high opinion of Winch, who, in turn, clearly had a high opinion of Harriman, would seem to explain why Baker ignored Backhouse Jnr.'s *Historical Recollections* about Binks in favour of crediting Harriman with being "...the first botanist to collect many of the rarer plants of Upper Teesdale,.." (Baker,1903:79). However, Baker chose to ignore his own published references to Binks (referred to earlier), which originated with Backhouse Snr., and he has simply followed Winch in ignoring William Oliver. Given that Baker knew about William Oliver, whose role will be explained later, as well as Harriman, this is hardly satisfactory. He has also not dealt with Backhouse Jnr.'s *categorical* assertion in his *Historical Recollections* that Binks "...first found and brought under notice..." the ten plants he lists. Indeed, he states that Harriman was the first to collect *Gentiana verna, Juncus triglumis, Vaccinium uliginosum,* and *Hammarbya paludosa* in Upper Teesdale and not Binks, as stated by Backhouse Jnr. in his *Historical Recollections*. Baker's **brief** *Biographical Notes* were hardly the place to assign the credit for discovering most of the "Teesdale rarities", because, of necessity, their very brevity prevented a detailed case being made, even if Baker thought he could make one in favour of Harriman. Baker's *Biographical Note* on Harriman and Backhouse Jnr.'s *Historical Recollections* of Binks each have a fundamental flaw in common: they present no evidence in support of their claims. We are expected to simply accept the claims at face value. That both Baker and Backhouse Jnr. were Quakers may be germane here. It will be demonstrated that both claims are flawed.

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[47] See note 1/11 above.

Baker had come across a number of other references to Binks before writing his *Biographical Notes.* He was familiar with William Robertson's interleaved copy of the first volume of *The Botanist's Guide* with it's copious annotations (Baker &Tate, 1868:109). Three of these annotations refer to Binks and Robertson's visit to Upper Teesdale in August, 1814, when he hired him as his botanical guide. One of the annotations states that Binks transplanted *Juncus triglumis* from Meldon Fell in Westmorland to Cronkley in Yorkshire. Robertson is emphatic that Binks first "discovered" it on Meldon Fell, not Harriman. Baker was also familiar with Robertson's herbarium (Baker & Tate, 1868:109). There are at least four gatherings of different species made by Binks in Robertson's herbarium at The Hancock Museum in Newcastle upon Tyne. Binks is mentioned on each sheet. One of these is of *Saxifraga hirculus* which Binks sent to Backhouse Snr. He, in turn, sent some of these specimens to Winch, who gave some to Robertson.[48] Backhouse Snr. also sent some specimens to James Edward Smith. Smith (1828b: 268) refers to this gift thus: "...On Cotherstone fell, near the junction of the river Balder, Yorkshire, found by Mr. John Binks, some of whose specimens were given me by Mr. James Backhouse [Snr.]." [49]

Baker would certainly have read Sarah Backhouse's *Memoir of James Backhouse*, 1870, and, therefore, seen the references to Binks. Baker was a member of The Botanical Locality Record Club (Lees, 1874:3) and its referee for the genera *Rosa* and *Hieracia* (Lees, 1879:3; 1880:42). He would surely have noted the entry for *Malaxis (Hammarbya) paludosa* in the 1875 report (Lees, 1875:130):

> ...In a bog at Greenfield above Saddleworth, York South-West. Seen in 1867 and again this year, August, 1875. *John Whitehead.* A most interesting New County Record; hitherto quite unknown

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[48] Sheet ref. HX 5853 in the Herbarium at The Hancock Museum, Newcastle upon Tyne.
[49] There is no evidence that Backhouse Snr. and Binks were in contact again after 1811. Therefore, Backhouse Snr. sent Smith some of Binks's 1811 gathering. Backhouse Snr. was only seventeen years old then. Apparently, he was out to make an impression. Alternatively, he may have done this at his uncle's (Edward Robson) suggestion.

within the limits of the West-Riding; indeed I might almost say Yorkshire, since the record for North-West Yorks. is quite an apocryphal one. The statement "Formerly found opposite the High Force-*J. Backhouse* " in Baker and Nowell's Supplement to "Flora of Yorkshire" reads as if resting upon hearsay or tradition only, since it was a miner, John Binks, who lived at Middleton-Teesdale from 1800 to 1815, [50]who is *said* to have found it there. "West of Middleton" is the first and vague record in Turner's [sic] "Botanist's Guide": followed by an assignment of the station by the Egglesburn in Durham, three miles above Middleton, to *Yorkshire*, in Baines's "Flora of Yorkshire." [51] John Binks was the discoverer of the "Sharnbury rig" station, and the early confusion of the county, and other reasons, lead me very strongly to the conclusion that Binks found the plant there only. When living at Middleton, two years back, a miner-botanist assured me he knew of it near the High Force in Yorkshire, but on taking me to the spot the plant turned out to be *Listera cordata.* "Well," said he, "that's the one I've always gathered at Sharnbury for it anyhow," much disappointed and (I think) not a little dubious as to the occurrence of any other inconspicuous bog-orchis, by the Egglesburn. *F. A. Lees.*

Frederic Arnold Lees (1847-1921), the author of *The Flora of West Yorkshire*, 1888, lived at Middleton Hall , Middleton-in-Teesdale,[52] from 7 February 1874 to 3 November 1875.[53] In 1872 he was elected a Fellow of the Linnean Society, one of his two sponsors being Baker (Seaward in Lees, 1888, republished 1978: v).[54] Lees was the General Practitioner in Middleton-in Teesdale (Seaward in Lees, 1888, republished 1978: v). William Oliver's son, William Jnr. (1800-1851), had been a General Practitioner in Middleton-in-Teesdale all his life,[55] and his son, William Hodgson Oliver (ba. 19 May, 1830: Oliver, 1982:88) was also a surgeon in Middleton-in-Teesdale.[56] William Hodgson Oliver left Middleton-in-Teesdale in the period 1855 to 1859.[57] Lees could well have learnt something of William Oliver and Harriman, as he did of Binks, whilst living in Middleton-in-Teesdale, particularly as he was the local G. P. and the Oliver family had only departed from Middleton-in-

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[50] " 1815 ": the approximate date of Binks's death?
[51] Henry Baines (1793-1878) worked for Backhouse Snr. in York (Desmond, 1977:29).
[52] Address in the *Report of the Recorder* [Lees] *for 1873. The Botanical Locality Record Club* (1874:3).
[53] *The F.A.Lees Botanical Diary 1865-1915.* The entries for these two dates confirm that he moved to Middleton-in-Teesdale on the former and left on the latter. Leeds Central Reference Library.
[54] On a personal note, one of my referees for Durham University was the late Dr. W. Arthur Sledge. He was one of my principal botanical mentors. Lees was his principal botanical mentor.
[55] William Jnr. is buried next to his father in the graveyard of St. Mary's Church, Middleton-in-Teesdale. The inscription on the headstone states that he died on 17 December, 1851, aged 51 years. A death notice appears in *The London and Provincial Medical Directory* for 1853 (p.683) which reads: "William Oliver, Surgeon, Middleton, Teesdale, Durham." This directory commenced in 1845. The earlier entries for William Jnr. describe him as a "General Practitioner".
[56] Slater's *Durham Directory* (1855: 59) shows him trading as a surgeon in Middleton-in-Teesdale.
[57] *The Medical Register* for 1859 (p. 225) (the first issue) shows him resident in Stockton-on-Tees.

Teesdale relatively recently. From where did Lees get the dates "1800 to 1815" for Binks living in Middleton-in-Teesdale? The date 1800 may have come from Baker in Baker and Tate (1868:256) in which he states that John Binks first discovered the "Sharnbury rig" station "...about the beginning of the century..." I take 1815 to be an approximation of the date of Binks's death, derived from local knowledge. It will be noted that Lees agrees with Baker that Binks did indeed discover the "Sharnbury rig" (that is, the Egglestone Moor) station, although, as we have noted, Baker subsequently changed his mind in favour of Harriman (Baker, 1903:79), in line with *The Botanist's Guide.* However, Lees does not agree with Baker (1863:186) that Binks found *H. paludosa* in the vicinity of High Force. As we have seen , the source of this information was Backhouse Snr. It is very frustrating not to know what Lees's "...other reasons..." were which led him "...very strongly..." to the conclusion that Binks found the plant at "Sharnbury rig" only. It is intriguing to note that *Listera cordata* is recorded "On Eglestone Moor" in *The Botanist's Guide* (Winch *et al.*, 1805:81). Lees's comments clearly suggest that he may have learnt more about Binks whilst living at Middleton-in-Teesdale than he has put in the public domain. We know that he was in touch with at least one miner-botanist. Perhaps something of Binks's botanical activities had come down by oral tradition. If this was the case, there can be little doubt that Baker and Daniel Oliver would also be party to it.

I want now to examine critically what Backhouse Jnr. has to say about lead mining in the north of England during the Napoleonic wars in his *Historical Recollections.* This will provide some indication of the veracity of the *Historical Recollections* as a whole. Backhouse Jnr. states: "Owing to the unhealthiness of the occupation, four days only in the week were devoted to mining; the remaining two being taken advantage of for recreation, and for obtaining from the adjacent hills any plants that "the druggists wanted," by which a slight addition could be made to his scanty

income." As a Quaker, Backhouse Jnr. no doubt took it as read as to how the seventh day (Sunday) was spent. It seems extraordinary that a lead miner should be working only a four day week at this time, and have two days a week off for *recreation*! We know that Binks worked for the London (Quaker) Lead Company. The normal working hours in the north Pennines around 1810, including those worked at the London (Quaker) Lead Company, were five days of eight hours each (Raistrick & Jennings, 1983:286). Binks was employed in dead work, that is, driving levels and sinking shafts through dead ground (ground not producing any ore). Dead work men usually kept to the standard hours (Raistrick & Jennings, 1983:287). However, "The August earnings [were] low, as many of the miners, particularly those with smallholdings,[58] left the mines or curtailed their working hours for a few weeks in haytime" (Raistrick & Jennings, 1983:288). August would be the only time that Binks could enter into a mutual "arrangement" with Backhouse Snr., which he apparently did in 1810. Binks apparently gathered *Saxifraga hirculus* in August, 1811 (see below), and acted as Robertson's guide in August, 1814. Perhaps Backhouse Snr. had misunderstood the situation in 1810, allowing his youthful Quaker idealism to colour his view of this Quaker company. If this was the case, then perhaps he similarly over-reacted to the *apparent* injustice done to Binks. It will be remembered that Backhouse Snr. was only sixteen or seventeen years old when he visited Upper Teesdale in 1810. It is possible that this appraisal of the company was formed sometime from 1842 onwards, when the Backhouses visited Upper Teesdale together. Backhouse Jnr. indicates in his *Historical Recollections* that Binks was vigorously healthy, because he only worked a four day week and could devote two days a week to recreation. However, Sarah Backhouse (1870:5) states that Binks's health was ".., impaired by working in the noxious air of the lead mines,.." I am surprised that Binks's income is

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[58] Men with families.

not described as much worse than "scanty" at this time. However, by 1810 the London (Quaker) Lead Company had "...instructed all its agents to make the wages bargains independent of the current price of lead, but to make it in such a way that it would guarantee a fairly regular weekly wage to the miners, sufficient to maintain him in decency, to provide for education and recreation, and to keep him sufficiently fed whatever the price of food"(Raistrick, 1977:32). Noting the reference to recreation in particular, it has to be said that the company was virtually forced to make these changes because of the price of food. I note that Fawcett in Lee (1985:42) also describes lead miners' incomes in the north Pennines around this time as "scanty". Backhouse Jnr.'s description would, therefore, seem to be accurate.

What are my conclusions about Backhouse Jnr.'s *Historical Recollections* and Baker's *Biographical Note* on Harriman and Upper Teesdale? Backhouse Jnr. (1884:10) stated that Binks was "The original discoverer of most of the botanical rarities of Upper Teesdale..." and that it was he who "...first found and brought under notice..." all the " 'Teesdale rarities' " which became known to the botanical world previous to the year 1820". No one was better placed than Baker to judge this claim. He effectively rejected it (Baker, 1903:79). I am aware, of course, that the explanation for Backhouse Jnr.'s assertions about Binks could simply lie in the Backhouses, as Quakers, having over-reacted to what they considered to be an injustice perpetrated on Binks by a clergyman and a doctor. Quakers were unsympathetic towards members of the established Church and the professions.

However, Backhouse Jnr.'s *Historical Recollections* are more authentically viewed from Baker's perspective. It would be too easy to dismiss Backhouse Jnr.'s comments out-of-hand, thereby overlooking valuable material in the article. Backhouse Jnr. is quite categorical that Binks "...first found and brought under notice..." the ten plants which he lists. Because he is so categorical I have paid particular attention to these

plants, as a result of which I can demonstrate that Binks did, indeed, find and bring under notice five of them. Do the other five have anything in common? Four of them are not in John Lightfoot's *Flora Scotica* ,1777, and the fifth, namely *Dryas octopetala* L. is mentioned by Lightfoot(1777: 275) thus: "It has never yet been found in *England.*" It will be demonstrated that William Oliver brought Lightfoot's *Flora* with him to Middleton-in-Teesdale in 1783.

Baker (1903:79) assigns to Harriman the role Backhouse Jnr. had given in print to Binks, with equal lack of industry. He was influenced by Winch and, therefore, his statement that Harriman "...was the first botanist to collect manv of the rarer plants of Upper Teesdale,.." is effectively derivative.

I, therefore, conclude, that the general statements made by Backhouse Jnr. about Binks and Baker about Harriman are unsound. It is. therefore. proposed to examine the extant primary sources.

CHAPTER 2

JOHN BINKS (1766?-1817) LEAD MINER OF MIDDLETON-IN-TEESDALE

The following entry is to be found on page 19 of the 1817 burial register for the parish of Middleton-in-Teesdale:

> John Binks Bachelor of Middleton, [buried] July 10.th 1817 [aged] 51 yrs.[1]

For the following reasons I am satisfied that this John Binks and that referred to by Backhouse Jnr. in his *Historical Recollections* are one and the same person:

1. He was a contemporary of William Oliver (1760?-1816), John Harriman (1760-1831) and Edward Robson (1763-1813). I have obtained the years of birth of Binks and Oliver by subtraction. These years have, therefore, been given a question mark.

2. We know from Backhouse Jnr. that Binks was "...an 'old stager' on the Teesdale hills; though not - I believe - what is called 'an old man' when he died." We also know from Sarah Backhouse (1870:5) that Binks's health was impaired "by working in the noxious air of the lead mines..." Binks suffered from the "'miners' complaint', a lung disease which materially shortened the lives of many of the men who worked underground, and made the miners old men at the age of fifty or fifty-five" (Raistrick & Jennings, 1983:304). Middleton-in-Teesdale was at the heart of a lead mining area and the John Binks in the burial register was fifty-one when he

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[1] See note 1/31 above. Three entries above that for Binks in this register, the burial of William Oliver's eldest son, Robert Hodgs[h]on Oliver, is recorded. The register shows that he was a surgeon in Middleton-in-Teesdale and that he was buried on 17 June, 1817, aged twenty-one years. The eye of John Hargrave, previously of the Durham County Record Office, was caught by the Binks's entry having found the Oliver entry. I am very grateful to him for his very astute help.

died.[2] He could, therefore, have been a lead miner. Fifty-one was not an old age at this time. Speaking generally, if an individual survived infancy at this time, he could expect to live to an old age (A. Kenworthy, pers. comm.).

3. In his *Historical Recollections*, Backhouse Jnr. (1884:11) states: "...John Binks showed to his young companion [Backhouse Snr.],.." There is an implication here that Binks was older than Backhouse Snr.

4. Backhouse Jnr.(1884:10) also states in his *Historical Recollections* that: "John Binks loved a good ramble right well, and his powers of endurance were not small. Living in the most frugal way, he could 'rough it' with a pleasure known to comparatively few." This is apparently inconsistent with what Sarah Backhouse (1870:5) says about Binks's state of health. However, she does point out that he "...needed the invigorating influence of the pure mountain breezes;.." (Backhouse,1870:5). Further, Harriman states in a letter to James Sowerby (1757-1822), dated 26 September, 1798:

> ...I could wish you wou'd make him [Binks] a small Present of some Thing that is used in Fishing, a Diversion he is particularly fond of. The Present must not be a Wheel nor dressed Flies. He fishes for small Trouts in the Fell Becks.[3]

5. These activities are not inconsistent with those of a bachelor. Had Binks been a family man, especially during the Napoleonic Wars, the suggestion for a gift would surely have been something more vital. Some miners had smallholdings to eke out a living (Raistrick & Jennings, 1983:297; Raistrick, 1981:29; Fawcett in Lee, 1985:37). No doubt family men had first call on any such vacant smallholdings. If Binks had had one, he might well not have started to collect plants to supplement his income.

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[2] Binks is described as a bachelor in the burial register. Some other entries in this register give the occupation of the deceased, for example, miner. I conclude that Binks was not working for a period prior to his death (because of the "miners' complaint"?).

[3] Letter from Harriman to Sowerby dated 26 September, 1798. JS ref: 9/A25/f.53.

6. In his *Historical Recollections* Backhouse Jnr. states that Binks first found and brought under notice all the " 'Teesdale rarities' " which became known to the botanical world prior to the year 1820. What is the significance of the year 1820? The first " 'Teesdale rarity' " that Backhouse Snr. found in Upper Teesdale and lays claim to was *Woodsia ilvensis* (L.) R. Br. in 1821 (Backhouse Jnr., 1884:11).[4] Coincidentally, this period also embraces that to Binks's death in 1817.

7. John Binks witnessed William Oliver's will, on 14 September, 1816 **(pl. 18)**.

Further evidence will be presented later that he was literate.

A John Binks worked in the Lodgesike lead mine near Middleton-in-Teesdale in 1806 and 1813.[5] There is no reason to believe that he did not work there in the intervening years. In his *Historical Recollections* Backhouse Jnr. states that Binks "...worked in the lead mines near Middleton-in-Teesdale, very early in the present century." Manorgill lead mine was very near Lodgesike mine. It will be recalled that it was Binks who discovered the station for *Hammarbya paludosa* near the Manorgill lead mine (Baker &Tate, 1868:256).

That the Binks who worked at Lodgesike lead mine is the same as the Binks that Backhouse Jnr. described can hardly be in doubt. Further, because he was a lead miner and lived in the parish of Middleton-in-Teesdale, I believe that the entry in the burial register refers to the Lodgesike Binks. Thus, I believe that Backhouse Jnr.'s Binks, the Lodgesike Binks and the Binks in the burial register were all one and the same person. Further, from my examination of papers relating to Middleton-in Teesdale at this time, it is clear that the surname Binks was very rare in the Middleton-in-Teesdale area (see below).

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[4] Confirmed by herbarium sheet at RBG, Edinburgh: "Foot of Cauldron Snout, Teesdale, 1821, first found there." One can only conclude that Backhouse Snr. had not laid claim to *Hippocrepis comosa* L. and *Epilobium alsinifolium* Villars (see below).

[5] See note 1/30 above.

Plate 18. The signature of John Binks as a witness to the will of William Oliver dated 14 September, 1816. Durham University Library Archives and Special Collections.

set my hand and seal this fourteenth day of September, one thou-
sand eight hundred and sixteen. --

Signed, sealed declared and published
by the above named William Rivers
as and for his last will and testament William Elmer
in the presence of us who at his request
and in his presence have subscribed
our names as witnesses thereto. --

Mark Sherlock
John Peirks
Wm Perkins

The twentieth Day of March 1817 Mark Sherlock one of the
subscribing Witnesses to this Will was sworn to the due Execution
thereof by the Testator and Robert Hodgshon Oliver of Middleton in
Teesdale in the County of Durham Surgeon the sole Executor therein
named was sworn to execute and perform the same as usual (under six
Hundred Pounds. Before me John Davis Surrogate.

A thorough check has been made of the likely baptism registers for Binks for the year 1766 and adjoining years without success.[6] The only possible candidate is a John, son of Simon Binks, baptised on 23 March, 1766, at St. Nicholas's Church in the City of Durham.[7] Whilst a case can be made for this being *the* John Binks, the links are so tenuous that it is not worth further pursuit. Even allowing for the fact that a baptism sometimes did not take place until several years after the birth, cross-checking within families in the local registers reveals no possible candidate. However, the system of registration of baptisms at this time was not foolproof (Miss M. McCollum, pers. comm.).

The earliest reference to Binks living in Middleton-in-Teesdale is an annotation by Sowerby on his drawing of *Vaccinium vitis-idaea* L. for *English Botany* (Garry, 1904 Supplement: 118). I have personally examined this annotation in the Botany Department Library at the Natural History Museum, London, and it reads:

> July 10th, 1797, Mr. Salt, of Sheffield, gathered it on the high turfy moor about 6 miles south-west of Sheffield. The Rev. Mr. Harriman and Oliver. Found by Jn. Binks, of Middleton, near the Tees force [High Force] in the county of Durham Robson.[8]

Sowerby (1799, **IX**: *t.*598 dated June 1, 1799) used Salt's gathering for his drawing.[9] Harriman and Oliver sent *V. vitis-idaea* up to Sowerby on 1 June, 1798, from "...near the source of Eglesbourn".[10] On 13 June, 1798, Harriman introduced Binks to Edward Robson by letter.[11] Robson visited Upper Teesdale with William Oliver and

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[6] Those checked include the parish of Middleton-in-Teesdale and all the surrounding parishes, and the International Genealogical Index for the counties of Durham, North Yorkshire, Westmorland and Cumberland.
[7] DCRO. Entry in the register of baptisms ref. EP/DU. SN 1/5.
[8] Garry (1904 Supplement: 118) shows a full stop between "Durham" and "Robson". I feel its absence lends weight to Edward Robson having submitted the Binks's material to Sowerby, that is, that Robson did not make his own submission.
[9] Wiltshear (1915:35) explains that this date is "...the date from which its copyright was vested in the engraver, whose pecuniary interests would be best served by fixing on the nearest possible date to that on which it was offered for sale, thus enjoying the protection of the Act, passed on his behalf, for the maximum length of time..." Thus, Sowerby's plates could well have been prepared *in* the month of which they are dated the 1st. This point becomes particularly germane later. See note 6/74.
[10] Letter dated 1 June, 1798, from Harriman to Sowerby. JS ref: 9/A25/f.49.
[11] ER ref: Add. MS 8190.

Binks in June, 1798 (**pl. 19** [12]).[13] Robson evidently sent Sowerby a gathering of *V. vitis-idaea* which was made on this visit at Bink's site.. Harriman and Oliver, and Robson sent this plant up to Sowerby for *English Botany* because it had not yet appeared in that work. They were apparently unaware that Salt had sent it up a year earlier.

From the letterpress by Smith which accompanies Sowerby's (1798, **VII**: *t.* 493 dated Sept. 1, 1798) plate of *G. verna* in *English Botany*, we learn that Binks gathered the plant in April,1797, in Teesdale Forest, and Harriman sent it up for *English Botany*. In 1796 Harriman and Oliver sent Sowerby *Lichen islandicus*, a medicinal plant (Woodville, 1793 **III**: 567), for *English Botany* from Meldon Fell, an outlier of Upper Teesdale in Westmorland.[14] It will be demonstrated that Binks was the first to find *Juncus triglumis* and *Vaccinium uliginosum* in Upper Teesdale, both on Meldon Fell, and that he collected medicinal plants for the druggists prior to his entering into an "arrangement" with Oliver. It has already been noted that "John Binks loved a good ramble right well, and his powers of endurance were not small. Living in the most frugal way, he could 'rough it' with a pleasure known to comparatively few." I believe that Binks originally collected *Lichen islandicus* from Meldon Fell as a medicinal plant prior to 1796, when he collected it for Harriman and Oliver. I, therefore, contend that Binks was resident in Middleton-in-Teesdale by 1796.

Is it possible to be more precise about when Binks became resident in Middleton-in-Teesdale? It has not proved possible to establish whether or not he was a native of

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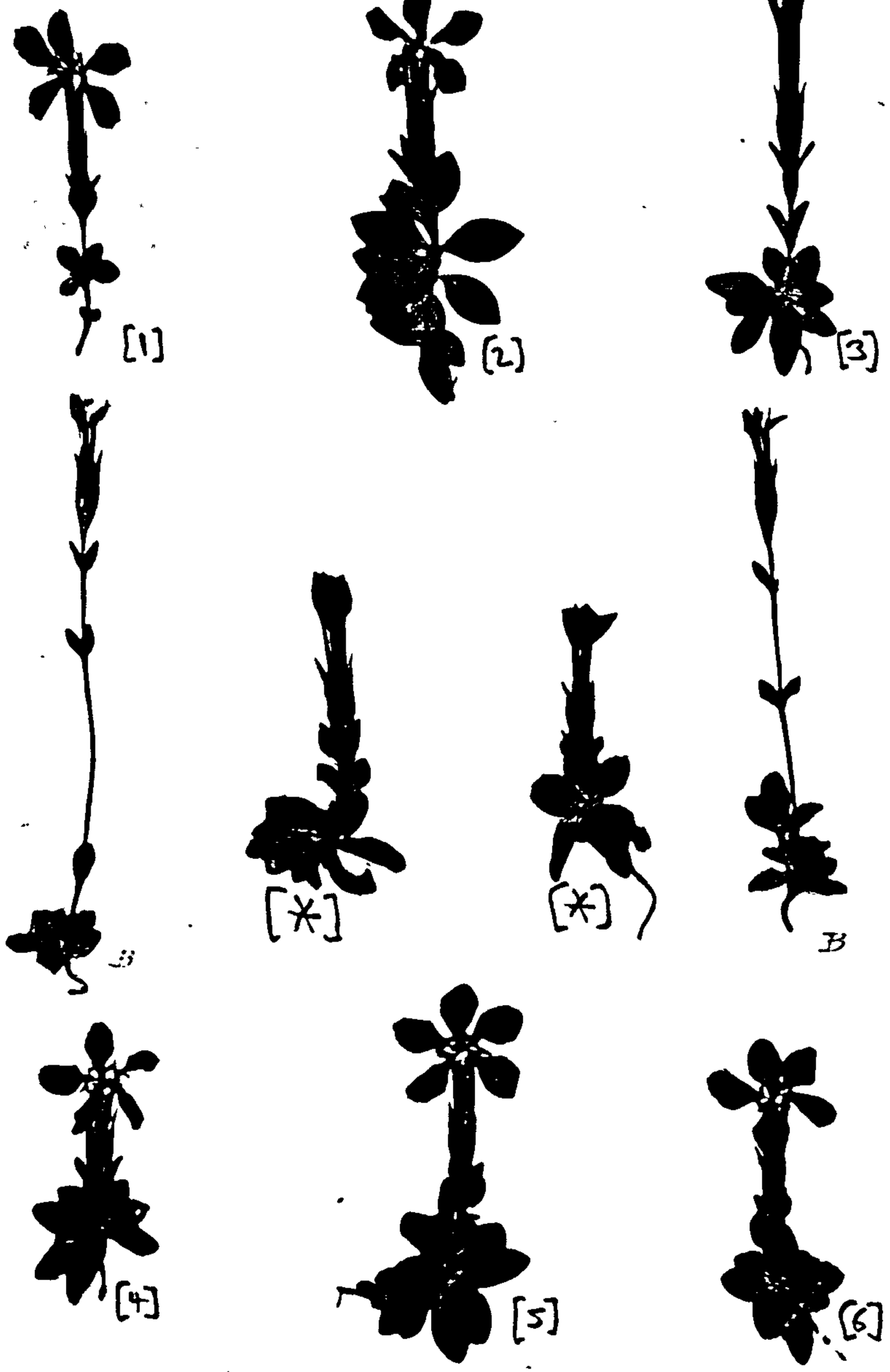
[12] Deleted.

[13] There is a sheet of *Helianthemum canum* (L.) Baumg. in Edward Robson's herbarium. One specimen is noted by Robson: "Cronkley Fell VI. 1798". There is no doubt that Robson gathered this specimen himself.

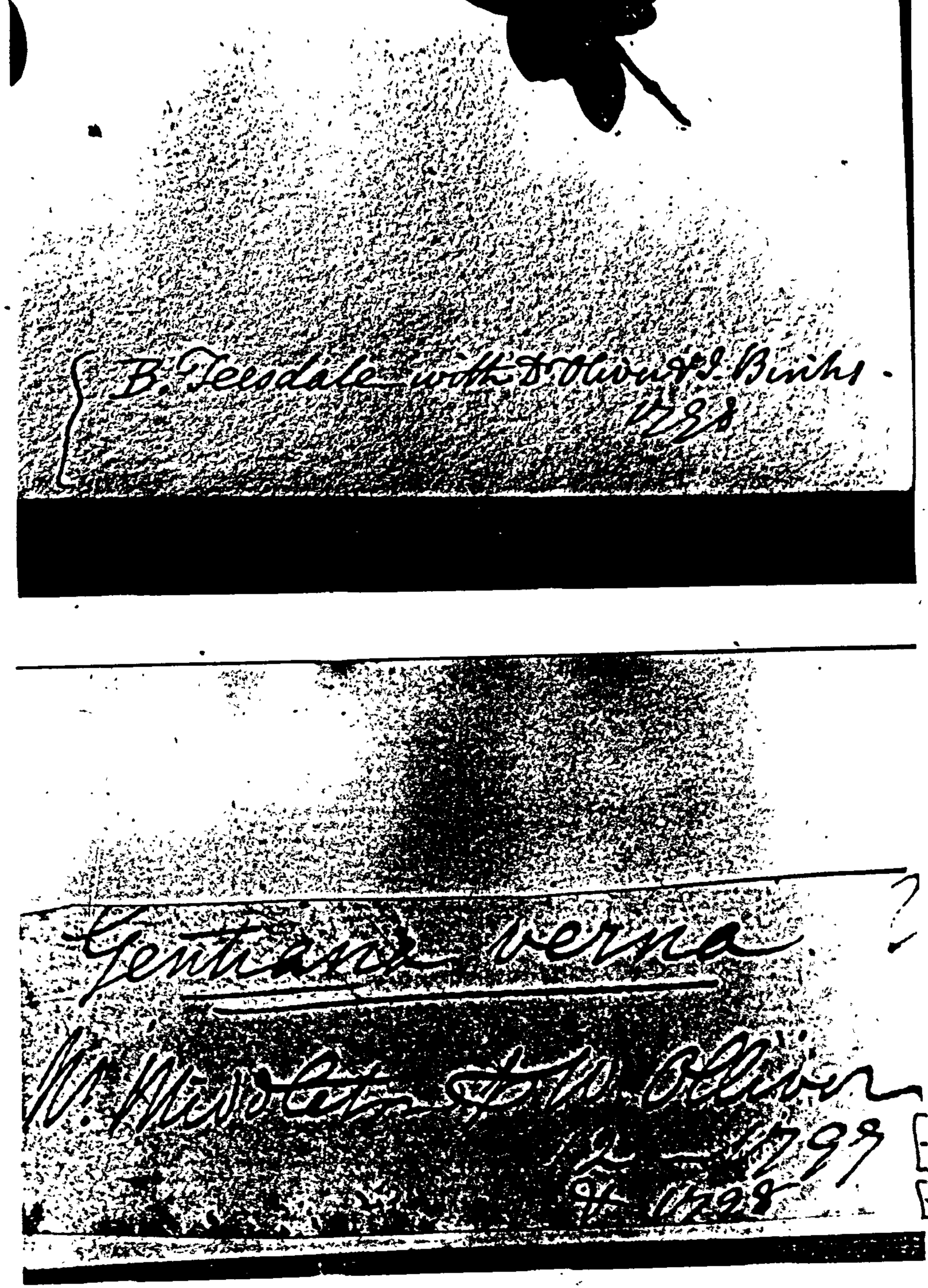
[14] Letter from Harriman to Sowerby dated 4 September, 1798. JS ref: 9/A25/f.51. Harriman and Oliver sent Sowerby *L. islandicus* from Meldon Fell with this letter. In this same letter Harriman also

Plate 19. *Gentiana verna* in Edward Robson's herbarium at Sunderland Museum. Note the elongated pedicels in the two specimens labelled " B ". These two specimens were collected by Robson in June, 1798. Note also Robson's expert pressing of specimens [1] to [6] inclusive: see the letter from Robson to Sowerby dated 12 May, 1798, in plate 1.



Gentiana verna.
W. Hudson & W. Oliver
12 - 1799
& 1798

{ B. Tersdale with S. Oliver & J. Brihs
1798



Middleton-in-Teesdale. Was he an immigrant, which is not unlikely given that he was a lead miner? Artisans are, of course, notoriously difficult to trace because so little documentation existed referring to them. Binks would not have required a settlement certificate if he had moved into Middleton-in-Teesdale because, as a lead miner and a bachelor, he could support himself (J. F. Hargrave, pers. comm.). Land Tax Returns for the township of Middleton-in-Teesdale survive in the period to 1817 for the years 1759, 1783, 1784, 1785, 1788, 1789, 1806 and 1815.[15] A John Binks does not appear in any of them. He may, nevertheless, have been a lodger in Middleton-in-Teesdale from an early date: an explanation I favour. I will explain the circumstances when I come to deal with William Oliver.

As referred to above, mining could be an itinerant occupation. Raistrick (1977:17) states about Teesdale "The great increase in mining population was not really serious, however, until after the sale in 1792 of the other properties of the [London (Quaker) Lead] Company in Wales and Derbyshire, and the subsequent taking of additional leases in the Alston Moor and Teesdale areas." However, Raistrick (1933-34; 1977; 1983) makes no reference to the Company taking on any new leases in Teesdale in the period 1792 to 1798. From 1793 work in the Derwent group of mines, in the Edmundbyers and Hunstanworth district of County Durham, some twenty miles north of Middleton-in-Teesdale, was slowed down and finally the London (Quaker) Lead Company (L.L.C. hereinafter) left in 1806 (Raistrick, 1933-34:141). The closure of the Derwent mines coincided with the opening of Lodgesike mine (Raistrick, 1933-

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refers to having sent Sowerby this lichen in 1796, but he does not mention the site. As argued earlier, I am satisfied that Binks gathered the plant for Harriman and Oliver from Meldon Fell in 1796.

[15] Durham County Record Office (DCRO):1759 ref.Q/D/L/58; 1783 ref./D/L 60; Durham University Archives and Special Collections (DUASC):1784 ref. Land Tax Assessments 69/62;1785 ref. Land Tax Assessments 69/63; 1788 ref. Land Tax Assessments 69/64; DCRO 1789 ref. Q/D/L 61; DUASC 1806 ref. Land Tax Assessments 69/65; 1815 ref. Land Tax Assessments 69/66. Land tax returns were made in the period 1692-1831. This tax on property enabled war to be made. Every spring returns were made to local magistrates who were responsible for sending abstracts and money to London. Some justices preserved original tax lists in their own family muniments until 1780. But

34:135), where Binks was working in 1806. The complex of veins around Coldberry Mine (of which Lodgesike was one) on the Hudshope Burn, north of Middleton-in-Teesdale, was worked by the London Lead Company for a long time. The Coldberry north level worked the Lodgesike-Manorgill vein extensively, after the Coldberry vein (Raistrick & Jennings, 1983:331-332).

It is, therefore, possible, that Binks was transferred from the Derwent mines, where he could equally well have been collecting medicinal plants for the druggists in particularly hard times, to the Coldberry complex in the period 1793 to 1795. Baker's (1903:79) reference to the date "1793" (a key date, being the date of the outbreak of war with France), Backhouse Jnr.'s to "1794 or 1795"[16] and Lees's (1875:130) to "1800" might be considered to bear this out.

Backhouse Jnr. informed Daniel Oliver in his letter of 12 August,1884 [17] that he imagined Binks's "...working range might be from 1794 or 5 to 1812 or 13", that is, from one or two years prior to 1796, to one or two years after 1811. I have demonstrated my belief that Binks was resident in Middleton-in-Teesdale by 1796. As I will demonstrate, it was in the period 1795 to 1796 that Binks first came to the attention of Oliver, and in 1796 that Edward Robson first received duplicates of the " 'Teesdale rarities' " of Upper Teesdale from Oliver and Harriman. Regarding the dates "1812 or 1813", Backhouse Snr. did not visit Upper Teesdale again after 1811 until 1820,[18] that is, after Binks's death.

How did Binks, a lead miner during the Napoleonic Wars, become involved in botany? In his *Historical Recollections* Backhouse Jnr. states that Binks obtained "...from the adjacent hills any plants that 'the druggists wanted,' by which a slight

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between 1780(!) and 1831 returns were supposed to be sent to the clerk of the peace to satisfy electoral registration regulations (DCRO).

[16] Letter from Backhouse Jnr. to Daniel Oliver dated 12 August, 1884. Autograph Collection in the Botany Department Library, Natural History Museum, London.

[17] See note 2/16 above.

addition could be made to his scanty income." There was a druggist at Romaldkirk, almost opposite Eggleston on the other side of the River Tees in Yorkshire, in 1675 (Brownbill, 1915: 43). The earliest reference I have come across to a druggist in Middleton-in-Teesdale itself is Robert Allinson (also a grocer and draper?) in 1827 (Parson and White, 1827: 271). As this is in the earliest local trade directory I have come across, no doubt there were druggists in Middleton-in-Teesdale prior to 1827, although Wallis and Wallis (1988) do not list any for the eighteenth century. Perhaps Binks sent his plant simples down to the druggists at Barnard Castle and Darlington on the coach?

In order to endure, the poor had to have a knowledge of medicinal plants, since they could not afford any other form of medical treatment (see below). Presumably, this is how Binks came to take an interest in plants. Backhouse Jnr., in his *Historical Recollections*, refers to druggists in quotation marks. The quotation could well have come from his father in view of the following extract from Backhouse Snr.'s *Recollections of Past Life* (pages 19 & 20):

> ...On leaving school I became an assistant to two Friends in Darlington, who conducted a business in the Grocery, Drug & Chemical lines...My masters and shopmate were orderly people. I did not remain with them long, for taking a severe cold, by my own imprudence, my health, which was never rigorous, gave way, and this drove me to seek an outside occupation. I had been distilling peppermint, and standing in the steams, astride of the still mouth, to take out the refuse, till my clothes were saturated; I then went home in a heavy rain and did not change my wet clothes for dry ones. The consequence was, an attack of inflammation of the lungs, from which my recovery for a long time seemed doubtful...[19]

Thus, Backhouse Snr. understood the proper use of the term druggist, and, therefore, the use of it in Backhouse Jnr.'s *Historical Recollections* can be regarded as authentic. As will be discussed, Oliver was an orthodox surgeon apothecary, and, therefore, not a druggist. As such, he would purchase his drugs from a druggist, a

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[18] See note 1/32 above.
[19] He convalesced in Teesdale in 1810.

wholesale one if available locally.[20] I do not know if there was a *wholesale* druggist in Barnard Castle and/or Darlington at this time. He would not, therefore, be one of Binks's customers for medicinal plants. There is, thus, no reason to believe that Oliver had any contact with Binks until 1795/1796. Loudon (1986:13) points out that the distinction between unorthodox druggists and apparent surgeons or apothecaries could be a "grey area". That there was, indeed, a market for medicinal plants is illustrated by the following extract from Teesdale (1800:46). Under "Carum Carvi" (caraway) he notes: "Meadows adjoining the river Humber near Hull, so plentifully that the poor people gather the seed to dispose of to the druggists." Indeed, [later Sir] Joseph Banks began to teach himself botany at the age of fourteen (in 1757) " and, for want of more able tutors, submitted to be instructed by the women, employed in culling simples, as it is termed, to supply the Druggists and Apothecaries shops, paying sixpence for every material piece of information " (Gascoigne, 1994: 83). As already discussed, little is known about how wholesale druggists obtained their domestic (and imported) supplies in this period. Indeed, Porter & Porter (1989:282) state that "...If,..., as current research seems to be demonstrating, the habit of self-physick was notably more common from the late seventeenth century, it is vital to know the channels through which sick people obtained their medicines..." Apparently, one channel was through people like Binks, an interesting area for further research!

It has been noted that Binks could sign his own name. The following extract from a letter dated 3 March, 1800, from Harriman to Winch confirms his literacy:

> ...I send you no Spec^{ms}. of the more perfect Plants of this Neighbourhood, because John Binks told me he was to furnish you with Spec^{ms}. of such. He told me at the same Time also that he had Spec^{ms}. of very few of them; & I offered to spply [sic] him with such as he wanted, if he wou'd

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[20] As Oliver did not order his books directly from London, I think it unlikely that he dealt with the metropolitan wholesale druggists like Corbyns.

> send me a List of them. He has not sent me a List; therefore I conclude he has got the Spec[ms]. he wanted from some Body else...[21]

In the period 1794 to 1796 there was a national food crisis. The primary cause of the crisis was a substandard harvest in 1794, aggravated by a very low wheat crop in 1795. Virtually the only indicator in its initial stages was the relatively slow price increases during the exceptionally hard winter of 1794-1795. However, no one was prepared for the subsequent rapid inflation and famine conditions over the summer of 1795 (Wells, 1977:2). In 1795 the London (Quaker) Lead Company started to make a series of contributions of £50 to be used for the relief of poor miners in the north (Raistrick, 1977:31). It is my contention that during this period Binks turned to gathering medicinal plants (again?) in Upper Teesdale to sell to the druggists in Barnard Castle and Darlington etc. (Wallis & Wallis, 1988) to supplement his inadequate income. In this way, I believe, Binks came to the attention of Oliver. In 1796 Oliver required duplicates of the " 'Teesdale rarities' " to send to other botanists. He entered into a mutual "arrangement" with Oliver who taught him what he needed to know. In this connection it will be remembered that Binks was "observant and intelligent" (Backhouse Jnr., 1884:10).

The L.L.C. was established in 1692. It finally went into liquidation in 1905 (Raistrick, 1977:11). In that long period only one Report Book of the company's agent in the north of England survives. I was very excited to find, when I examined it, that it covers the period 1806 to 1820. There are no fewer than four references to John Binks in the Book. I make no apology for quoting these references. They tell us something more of his character, and the conditions he worked in which led him to love "a good ramble right well". On 25 October, 1806, Thomas Dodd, the agent,

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[21] Letter from Harriman to Winch. Ref: W1.003.

reported that "J. Binks etc. are Driving the new Level [at Lodgesike]." [22] On 10 April, 1813, Thomas Dodd Snr. reported that "...J^{no}. Binks etc. are sinking a Sump [at Lodgesike] from the upper Level to the deep one, which will drain the water from the Vein, and enable us to raise a good deal of Ore between the two Levels." [23] On the 10 July and 6 November, 1813, he reported that "...J^{no}. Binks etc. are sinking a Sump [at Lodgesike] between this and the upper Level, which is to accommodate the Mine with fresh air, and raise Ore in the deeper Stratums."[24] Thus, in 1806 and 1813 Binks was employed on dead-work. As the driving normally took many years, the jobs in dead-work offered security (Raistrick, 1981:36-37; Raistrick & Jennings, 1983:286). Alone amongst the mines north of Middleton-in-Teesdale, Lodgesike did well in this period.[25] The dead-work men worked in partnerships, normally of from four to eight members, at a price per fathom initially fixed and periodically adjusted according to the hardness of the rock to be cut (Raistrick & Jennings, 1983:286). "J$^{no.}$ Binks etc." is clearly a reference to Binks's partnership.[26] Part of Binks's responsibilities as spokesman for his partnership would be to bargain with the agent the price per fathom (Raistrick & Jennings, 1983:286; Raistrick, 1981:28-29). Perhaps Binks acted as spokesman because he was literate. Illiteracy was not uncommon amongst the lead miners at this time (Raistrick, 1977:56; Raistrick and Jennings, 1983:320). However, he must also have had a strong personality: able to stand his ground. We have noted that he was apparently " 'above his station' ".

Above I quote from Harriman's letter to Winch dated 3 March, 1800. If we examine this in conjunction with the following extract from Harriman's letter to Winch of 26 March, 1800, from Eggleston : "I Rec'd the Roots; and beg you will

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[22] See note 1/30 above.
[23] See note 1/30 above.
[24] See note 1/30 above.
[25] See note 1/30 above.
[26] A lot of other partnerships are similarly referred to in the Report Book.

accept my best thanks for them. The carrier did not take them to John Binks: but brought them directly to me",[27] it is evident that Winch and Binks had entered into a mutual "arrangement", similar to that into which Binks and Oliver had entered. Winch visited Upper Teesdale for the first time on 25 and 26 August, 1799.[28] [29] This visit will be discussed in detail later.

Winch (1824: 495;1833: 4) makes the following statement:

> That a person, who for many years has acted in the capacity of a guide to travellers, and made a profit by selling dried plants, should have picked up several rare ones, *cannot be doubted* [my italics],...[30]

This, in a nut shell, describes what Binks did.

The depth of Binks's botanical experience is illustrated by him acquiring some knowledge of lichens. In early 1797, Harriman started studying lichens with Oliver, a matter which will be examined in detail later. On 4 June,1799, Harriman wrote to Sowerby about a lichen which Oliver had sent direct to Sowerby as new.[31] Harriman told Sowerby that he did not agree with Oliver that it was new. He gave him his detailed reasons for thinking that Oliver's lichen was what Harriman called "my *atrocinereus*". It must be emphasised that lichen taxonomy was still in it's infancy at this time.[32] He continues: "...I found about Half a Dozen Specimens of my *atrocinereus* a month or five weeks ago; I have seen none else, but the one found by John Binks, for Half a Minute, which Mr. Oliver sent you..." Oliver had parted company with Harriman in bitter circumstances in April, 1799. This important matter will, again, be examined in detail later. In a letter which Harriman wrote to Winch on

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[27] Ref: W1.005.
[28] That this was Winch's first visit is confirmed by herbarium sheets at The Hancock Museum, Newcastle upon Tyne.
[29] In the library of the Linnean Society of London there is Winch's personal, heavily annotated, set (four volumes) of the fifth edition of William Withering's *A Systemic Arrangement of British Plants*...corrected and...enlarged by William Withering (the younger), 1812. The annotations made with respect to 25 & 26 August, 1799, etc. and Upper Teesdale will be discussed in detail later.
[30] Winch is referring to Thomas Hutton (*fl.* 1780s-1820s) of Keswick.
[31] JS ref: 9/A25/f.61.

13 November, 1806, he states: "...I sent Mr. [Dawson] Turner the only specimens I had of *End. Hedwigii* [*Endocarpon Hedwigii* Ach., a lichen]. I have never seen much of it. John Binks told me he knew of plenty of it."[33] Further evidence of Binks's knowledge of lichens will be presented.

Harriman and Oliver sent Sowerby minerals for his *British Mineralogy* (Sowerby, 1804: 31, 149 [34]; 1809: 13[35]). No doubt Binks could have also supplemented his income by selling the minerals that he came across. A letter from J. H. Fryer to Winch dated 30 December, 1816, is illuminating in this respect:

> ...By informing one of the guides at Keswick of the rare fossils of Caldbeck fells they will now be very difficult to procure as he has brought all away which he could easily [illegible] and he tells me he has made about £100 by the sale of them. It has, however, had the good effect of increasing my collection since he brings some specimens of everything which he has any doubts about...[36]

The only actual evidence of him collecting minerals is in a letter from Harriman to Sowerby dated 6 November, 1799:

> I shall not send off the box till this Day Fortnight, that it may contain a Specimen of a curious Lead-ore, which John Binks promises to procure for you on Monday Sinnight [week]. I once sent you a small Bit of this Ore, which you thought was of the semimetallick White-lead of Kirwan [see bibliography];...[37]

Reference has already been made to Binks having first found and brought under notice five of the ten plants listed by Backhouse Jnr. in his *Historical Recollections.* I now wish to confirm that Binks did indeed first find and bring under notice these plants:

Hammarbya paludosa

I have indicated earlier that Baker's source for the two Binks's records for *H. paludosa* in Upper Teesdale was Backhouse Snr. It has been noted that Lees

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[32] See note 1/43 above.
[33] Ref: W2.032.
[34] Sowerby states: " ...We received this specimen from Durham by favour of Messrs. Harriman and Oliver, some years since - but did not know how valuable it was until lately - having now discovered that it contains many small drops of water or some other liquid in little hollows, which as far as we know have never been discovered in any other substance except quartz, or rock crystal..."
[35] Sowerby states: "...This specimen is the production of Cumberland, and I have been favoured by the Rev. Mr. Harriman and Mr. Oliver with a piece about a foot in length [!] from which the clay had apparently been washed out,.."
[36] Ref: W3.144.

(1875:130) states: "...John Binks was the discoverer of the "Sharnbury [sic] rig" station,.." [38] but he does not accept that Binks found the plant on the Yorkshire side of the River Tees near High Force. Indeed, his clear implication is that the plant had never been found at this station. However, H. J. Wilkinson (1859-1934) found it on the Yorkshire side of the River Tees "Near High Force" in 1883[39] and W. Ingham (1854-1923) found it in 1895 "approximately one hundred yards above High Force on the Yorkshire side of the Tees" (Ingham, 1895:307; Ingham, 1906:26). In addition, there have been a further three records in this general area this century, including a recent one of my own. I, therefore, reject Lees's misgivings and, given that the original source of the information was Backhouse Snr., I am convinced that Binks found the plant at this site also.

Despite having said that Binks discovered the station for *H. paludosa* "...on the banks of the Egglesburn near the Manor Gill lead mine on Eglestone Moor" (Baker in Baker & Tate, 1868:256), Baker (1903:79) later changes his mind and credits Harriman with this discovery. As discussed earlier, I believe this was because the entry in *The Botanist's Guide* (page 81) reads "On Eglestone Moor, D.-*Rev. J. Harriman*." As will be discussed in detail later, Harriman was the *authority* for this record. As Winch indicates, somewhat obtusely, in the preface to *The Botanist's Guide*, it does not follow that the authority for a plant in *The Botanist's Guide* is the person who discovered the plant. In the case of only one vascular plant in *The Botanist's Guide* and Winch's *Flora*, namely *Aspidium Lonchitis* (*Polystichum lonchitis* (L.) Roth) (on page 68 of the latter work), does Winch state that a plant was

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[37] JS ref: 9/A25/f.66.

[38] "Sharnbury [sic] rig" is a reference to Baines (1840:103). From this reference, together with Baker and Nowell (1854,120) and Baker and Tate (1868:256), it is clear that the "Sharnbury [sic[rig" site is the same as the site "...on the banks of the Egglesburn near the Manor Gill lead mine on Eglestone Moor" (Baker in Baker and Tate, 1868:256). Lees's (1875:130) authority for his statement is, no doubt, therefore, Baker (in Baker and Tate (1868:256)).

[39] Herbarium of the Yorkshire Philosophical Society, Yorkshire Museum, York.

"First found by the Rev. J. Harriman." In fact, as will be demonstrated, even this was not the case. I am, therefore, in no doubt that Baker's original information from Backhouse Snr. about Binks having first found the plant at this site is correct.[40]

H. paludosa is a very small, green orchid which often grows in green *Sphagnum.* It can, therefore, be extremely difficult to find, as I know from my own experience. It is a classic case of having to know the plant's jizz. That Binks first found and brought under notice *H. paludosa* in Upper Teesdale is certainly good evidence of his being "...observant..."

H. paludosa appeared in the first volume of *English Botany*, hence Harriman and Oliver not sending it up to Sowerby. It is also in Edward Robson's *Plantae rariores agro Dunelmensi indigenae*, which I have dated 1 May, 1798, (see below). Therefore, Binks found it in 1796 or 1797.

Juncus triglumis

In *The Botanist's Guide* there is just one site for *Juncus triglumis.* The entry reads: "[On Meldon Fell.] [41]*Rev. J. Harriman.*" In William Robertson's personal, interleaved copy of *The Botanist's Guide* he has annotated this entry with a cross before "*Rev. J Harriman*", which cross-references to the following annotation on the interleaved sheet opposite page 33:

> J. Binks brought 3 plants of this from Meldon Fell, (X where he ["he" is underlined twice] first discovered it), and planted them by a stream, nr. the Black Ark, on Cronkley, Yorks[e]. Two plants were in fructification, when he pointed them out to me in Aug[t]. 1814. W.R.

Thus, Binks had apparently convinced Robertson that he and not Harriman had first found *Juncus triglumis* on Meldon Fell, on the edge of Upper Teesdale. As with

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[40] Deleted.

[41] Winch *et al.* (1805: (v)) explain the use of square brackets as follows: " ...A few [plants], which are placed between brackets, are the production of Yorkshire, growing on the south bank of the Tees; but as the whole of them are of rare occurrence, and so very little beyond the range of their undertaking, this liberty will they trust claim the indulgence, if not the thanks, of their botanical readers... "

Baker (1903:79), both Binks and Robertson have incorrectly treated the authority for the record as being synonymous with the individual who actually made the discovery. Credit for making an important new record can still be a very sensitive matter and one can understand Binks's reaction whatever it said in the preface, especially as there is not a single mention of Binks in *The Botanist's Guide*. Here, we have evidence of a grievance on the part of Binks against Harriman who was the authority for all the Upper Teesdale records in *The Botanist's Guide* which Winch had not verified for himself in the field. There is not a single reference to Oliver in *The Botanist's Guide*. It is worth noting that apparently two of the three original plants of *J. triglumis* were in fruit in August, 1814. Therefore, they had not spread, which indicates that the translocation was recent. Temperley (1934:180) reported that the plant had "...spread considerably...". Why did Binks translocate the plants from Meldon Fell to Cronkley Fell? Meldon Fell lies on the edge of Upper Teesdale. In 1814, Binks was within three years of his death. I believe he did it because of the state of his health. Meldon Fell was the only site then known in Upper Teesdale for this plant (a more accessible site had been found for *V. uliginosum*) and Cronkley Fell, which is one of the botanical highlights of Upper Teesdale, is much more accessible. Bousfield (1881: 141) states: "It is said that within the space of a few yards, on a spot called Black Ark, on the sugar limestone, nearly all the rare plants of upper Teesdale are to be found... " There is no evidence that Binks planted any more species at Black Ark: the site was so rich that he didn't need to! In 1814 Binks gave Robertson *J. triglumis* collected from Meldon Fell.[42]

J. triglumis is included in Edward Robson's *Plantae rariores agro Dunelmensi indigenae* dated 1 May, 1798, and, therefore, Binks discovered it, as with

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[42] The date on the herbarium sheet at The Hancock Museum (HX15478) is given as "Ann. 1814." I interpret this as meaning that Robertson received material of *J. triglumis* from Binks in 1814 which

Hammarbya paludosa, in 1796 or 1797. However, unlike *H. paludosa, J. triglumis* had not yet been figured in *English Botany*.[43] Why didn't Harriman and Oliver send it up to Sowerby? I believe the answer lies in a note made by Harriman on his herbarium sheet of *J. triglumis*: "The Eleston [sic] Juncus No. 35 named biglumis is I think only a var. of triglumis as I thought when I put it there." [44] Harriman has written this over his label "Juncus triglumis". As will be demonstrated, it is significant that Lightfoot (1777:1100) states that *J. biglumis* "...is very nearly related to the JUNCUS *triglumis*, and perhaps only a variety of it." *J. biglumis* L. and *J. triglumis* L. are still recognised as distinct species. As Harriman was unclear as to what constituted typical *J. triglumis*, he didn't risk sending it up.

Vaccinium uliginosum

On 24 August, 1798, "...Mr. Oliver & I [Harriman] sent a Box..." to Sowerby which contained, amongst other plants, *Lichen islandicus* from Meldon Fell and berries of *Vaccinium uliginosum*, with a promise to send specimens of the latter in flower the following Spring.[45] Harriman does not state the place of origin of the *V. uliginosum* berries. However, there is only one record in *The Botanist's Guide* (p.37) for *V. uliginosum*, namely: "[On Meldon Fell.] *Rev. J. Harriman.*" The box also contained berries of *Arbutus uva-ursi* and *Vaccinium vitis-idaea*, together with a further nineteen species of lichen. It will be recalled that in 1796 Harriman and Oliver sent up to Sowerby *Lichen islandicus* gathered by Binks on Meldon Fell. I am, therefore, in

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was gathered in an earlier year. That Robertson's material came from Meldon Fell lends weight to there being only three plants on Cronkley Fell in 1814.

[43] Plate dated July 1,1801 (*t*.899).

[44] Sheet number 38 in Harriman's herbarium at The Liverpool Museum.

[45] Letter from Harriman to Sowerby dated 4, September,1798. JS ref: 9/A25/f.51.

no doubt that Binks first found and brought under notice *V. uliginosum* in Upper Teesdale, from Meldon Fell.

In April,1799, Oliver sent up to Sowerby (1799, **IX**: *t.* 581 dated April 1, 1799) flowers of *V. uliginosum* which he figured in *English Botany*. This matter will be discussed in detail later. It is highly likely that Binks gathered these flowers. That Oliver sent them up rather than Harriman is explained by Oliver having parted company with him. Prior to this incident, it was Harriman who had sent all the "'Teesdale rarities'" up to Sowerby for *English Botany*, on behalf of himself and Oliver.

Arbutus uva-ursi

On 13 June, 1798, Harriman wrote to Edward Robson in the following disordered way:

> ...I sent you Specimens of Melampyrum sylvaticum & of Lichen lacustris by Mr. Brunton[46] Yesterday: the former of which was found near Winch Bridge last week, where & when Potentilla verna [*Potentilla crantzii* (Crantz) G. Beck ex Fritsch] was likewise found; the Latter about a Month ago, in the Bed of the Tees, near Widdy Bank, at which Time was found also Convallaria majalis, near the Winch Bridge, & Arbutus Uva-ursi, on Force Garth Scar, & on the North Side of Cronkley. Specimens of Arbutus Uva-ursi were brought to Mr. Oliver a few days before by a Miner of the name of Binks which had been gathered for Specimens of Vaccinium Vitis-idaea; about three hundred Yards above the High Force on the Yorkshire side of the Tees. Force Garth Scar is on this side [of] the Water...[47]

This letter illustrates the nature of the mutual "arrangement" which existed between Oliver and Binks. Oliver had asked Binks to collect specimens of *Vaccinium vitis-idaea* for him so that he and Harriman could send it up to Sowerby to figure in *English Botany*.[48] That Binks mistook *A. uva-ursi* for *V. vitis-idaea* is pardonable especially in view of Smith's comment in the letterpress accompanying Sowerby's plate of *A. uva-ursi*: "...Many persons have confounded this plant with V. vitis-idaea

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[46] William Brunton (1775-1806) of Ripon in North Yorkshire. FLS 1806. Contributed to *English Botany*. His role in the elucidation of what eventually was named *Kobresia simpliciuscula* (Wahlenb.) MacKenzie will be explained later. According to Welch (1958: 39), Brunton was a Quaker. Had he lived, he would no doubt have made his mark as a botanist. longer

[47] ER ref: Add. MS 8190.

which somewhat resembles it but in that genus the germen [ovary] is inferior."

Harriman and Oliver sent Sowerby fresh material of *A. uva-ursi* on 1 June, 1798,[49] with berries later.[50] In the letterpress Smith states: "...We have received it from Durham by favour of The Rev. Mr. Harriman & Mr. Oliver..." Binks's gathering of *A.uva-ursi* is the first record for Upper Teesdale. Although he gathered *A. uva-ursi* for *V. vitis-idaea*, he first found and brought under notice *A. uva-ursi* in Upper Teesdale. In that Oliver brought the plant to Harriman's attention, it is clear that Oliver had identified the plant.

Saxifraga hirculus

Backhouse Snr. sent Winch *Saxifraga hirculus* "...from Cotherstone Fell on a moss about ½ a mile south-east of the place where Baulder is joined by Black Beck,.." with an undated letter which Winch received on 12 August, 1811 [51] **(pl. 20)**. Backhouse Snr. added: "...first found there by John Binks of Middleton Teesdale..." Although this site is seven miles into Yorkshire, Winch included it in his *Flora* (1831:28) thus:

"On Cotherstone Fell, in a moss about half a mile south-east of the place where the Balder is joined by the Black beck.-Mr. James Backhouse. Said to have been first found by John Binks, a miner." This is Winch's only reference to Binks in *The Botanist's Guide* and his *Flora*. Although this site is near rather than in Upper Teesdale, it has been included as the first record for this area. The plant was not recorded again in this area until 1840, when John Bell found it, this time in Upper Teesdale proper (Bell, 1843-44:741). Backhouse Jnr. and others were subsequently to discover a number of other sites in Upper Teesdale (Backhouse Jnr.,1884:13).

It is illuminating to investigate when Binks first found *S. hirculus* in Baldersdale. In the British Herbarium at the Natural History Museum in London there is a gathering

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[48] Plate dated Mar. 1, 1800 (*t.*714).
[49] Letter from Harriman to Sowerby. JS ref: 9/A25/f.49.

Plate 20. *Saxifraga hirculus* in the British Herbarium, Botany Department, Natural History Museum, London. The five specimens numbered " 1 ", from William Withering's herbarium, have been labelled by Nathaniel Winch: "... Near the junction of Baulder & Black beck on Cotherstone fell yorkshire [sic]. first found by J. Binks. " The four unnumbered specimens from Winch's herbarium have been labelled by James Backhouse Snr: "...Cotherstone Fell at the junction of the Black beck and the Baulder Teesdale ". They were collected in 1811.

vc.66

Saxifraga Hirculus
Linn. Sp. Pl. 577.
Hab. Wikstroem
Swed. Fl. Finsk.

In Scotia Boreali
Dr. Davidson Hirculus
Near the junction of Banff & Elginshire on
Cairngorm Hill Perthshire. Not found
by Dr. Banks.

Saxifraga Hirculus
Linn. Sp. Pl. 577.
Hab. in Scotia Fell at the
junction of the Black
Mark & the Boulder
Lee dale
J. B.

Herb. Winch

of *S. hirculus* with the following notes by Winch: "At the junction of the Blackbeck & Baulder. Teesdale. J Binks. This is the Habitat which D[r.] Townson [52] refused to communicate to Brunton. See Bot Guide Yorkshire." And: "First found by Jn[o] Binks a miner-sent on acc[t] of its Habitat." "Bot Guide" is a reference to Turner & Dillwyn's *The Botanist's Guide through England & Wales"* (1805:690) which reads: "I have a specimen found in Yorkshire by Dr. Townson, but I do not know in what part. *Mr. Brunton*." Turner & Dillwyn was published on 10 August, 1805, and *The Botanist's Guide* on 29 July, 1805 (Stafleu and Cowan, 1986 **VI**: 546; Sayre, 1959: 26). However, *S. hirculus* is not included in *The Botanist's Guide*. As already pointed out, this was not because it was found in Yorkshire. Harriman wrote to Winch on 25 February, 1804: "...He [Dr. Townson] lately sent me a specimen of Saxifraga hirculus which he found in Yorkshire last summer." [53] In an earlier letter dated 10 August, 1803, Harriman told Winch: "...I found Polypodium dentatum (*Cystopteris fragilis* (L.) Bernh.) last spring.[54] I then suspected it was it but could not be positive it was so very young. I visited it again lately in company with Dr. Townson and Mr. Headlam when I found it in fructification and could have no doubt about it." [55] Presumably Townson confirmed to Winch that Binks's site was the one he refused to divulge to Brunton sometime after Backhouse sent Winch specimens on 12 August, 1811.

My scenario is as follows. Townson hired Binks in August, 1803 to show him *S. hirculus* in Baldersdale. Harriman left Eggleston at the beginning of June, 1801, before *S. hirculus* would be in flower. Binks, therefore, found the plant at this site in

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[50] Letter from Harriman to Sowerby dated 27 July, 1798, with fruit of *A. uva-ursi*. JS ref: 9/A25/f.50.
[51] Ref: W2.118.
[52] Robert Townson (*fl.* 1790s-1800s). Correspondent of R. A. Salisbury. Discovered *Saxifraga rivularis* in Britain, (Desmond, 1977:615). The first letter from Townson to Winch is dated 2 June, 1803. Ref: W1.109.
[53] Ref: W1.144.
[54] The entry in *The Botanist's Guide* (1805:98), under the synonym *Cyathea dentata*, reads: "On Rocks between Widdy Bank and Cauldron Snout, D. [Durham]-*Rev. J. Harriman.*"
[55] Ref: W1.122.

1801 or 1802. If Harriman had known of the discovery, which he didn't,[56] it would have appeared in *The Botanist's Guide*. It is perhaps significant to note that the plate of *S. hirculus* in *English Botany* (Sowerby, 1802: **XV** *t.* 1009) is dated 1 March, 1802. Oliver purchased those parts of *English Botany* already published, in 1797.[57] Two points of particular interest emerge from this examination. Firstly, in that Oliver did not send Edward Robson specimens of *S. hirculus* until prompted to do so by Backhouse Snr.'s visit to Upper Teesdale in 1810, they had clearly lost touch. Oliver had dropped out of mainstream botany after 1799 when he split with Harriman. Secondly, it is clear that Binks's mutual "arrangement" with Winch had ceased prior to his finding *S. hirculus* in 1801 or 1802. This is in line with Harriman having left Eggleston at the beginning of June, 1801, which will be demonstrated later.

That Binks entered into a mutual "arrangement" with Oliver, but not Harriman, and, therefore, Binks collected for Oliver only is now demonstrated. It will be evident that Oliver and Harriman were, at least in the early days, close botanical associates, so this difference is largely academic. The reason that Harriman didn't enter into a similar mutual "arrangement" with Binks is that he simply could not afford it. He wrote to James Edward Smith on 30 November, 1803: "...My income at Egleston was only £30 a year [word obscured] though my present one [at Gainford] is considerably larger..." [58] In a letter to Winch dated 31 July, 1805, Harriman states: "...Mr. [James] Dalton [59] has got the living of Croft in this Neighbourhood worth about £1112 a

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[56] Letter from Harriman to Winch dated 26 October, 1812. Ref: W3.014.
[57] Letters from Edward Robson to Sowerby dated 26 6mo 1797, JS ref: 16/A48/76, and 15 11mo 1797, JS ref: 16/A48/f.81.I assume Oliver continued to obtain his parts of *English Botany* through Robson until he lost touch with him. As he maintained his interest in botany (see below), presumably he then made other arrangements, the most obvious being ordering through a bookseller.
[58] JES ref: 22 f.165.
[59] Rev. James Dalton (1764-1843). FLS 1803. Rector, Copgrove, 1789, Catterick, 1791, Croft, 1805-43, all in North Yorkshire. Collected and studied Carices, lichens and mosses. Discovered *Scheuchzeria palustris* L. 1787. Contributed to *English Botany* (Desmond, 1977:170). Sir Joseph Dalton Hooker's middle name was given in honour of his godfather, James Dalton. Dawson Turner said of Dalton that he was "born to affluence..." and Sir William Jackson Hooker described him as "...this estimable man and elegant scholar,.." (Allan, 1967:47-48).

year. I wish he would appoint me the curate as a living of that value would have to allow the curate £200 a year. I shall not, however, ask him. He knows that I am hard whipt to keep body and soul together where I am..." [60] Harriman was a bachelor at this time, and lived in lodgings in Eggleston.[61] Nevertheless, one wonders how on earth he managed on £30 a year. In fact, he could not afford the cost of the postage which his botanical activities entailed.[62]

I now want to examine how Binks could apparently have been under the misconception that he first found and brought under notice *Potentilla fruticosa*, *Gentiana verna*, *Helianthemum canum*, *Bartsia alpina* [63] and *Dryas octopetala*.[64] Presumably, Binks had convinced the young Backhouse Snr. in 1810 that he had first found and brought under notice these species in the same way as he had, justifiably, convinced Robertson about *J. triglumis*. There is no reason to think that Binks did this for any reason other than his nursing what he considered to be a genuine grievance. It will be demonstrated that, in fact, Oliver had found these classic plants of Upper Teesdale there before Binks became involved, and before Harriman had arrived in Upper Teesdale. Oliver was unable to identify these plants because he only had Lightfoot's *Flora Scotica*. Harriman moved to Eggleston near Middleton-in-Teesdale in 1796 and came to know Oliver. He already knew Edward Robson, who had been sending plants up for *English Botany* since 1792.[65] Oliver got Binks to gather fresh material of each of these plants which Oliver then identified with the help of Stephen Cleasby (*q. v.*), surgeon of Barnard Castle. Robson already knew *Potentilla fruticosa*

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[60] Ref: W1.230.
[61] Letter from Harriman to Winch dated 30 may, 1804. Ref: W1.151.
[62] Letter from Harriman to Smith dated 30 November, 1803. JES ref: 22 f.165.
[63] *B. alpina* was not discovered in Scotland until 1789, hence it not being in Lightfoot's *Flora Scotica* of 1777 (Grant Roger, 1986: 98).
[64] *D. octopetala* is not one of the thirty-two figures in Lightfoot's *Flora Scotia* of 1777.
[65] Letter from James Sowerby to Edward Robson dated 21 May, 1792. ER ref: Add. MS 8190.

from High Force,[66] and had specimens (not from Upper Teesdale) from his botanical correspondents of *Helianthemum canum* (from William Curtis), *Bartsia alpina* (from James Edward Smith in April, 1789) and *Dryas octopetala* (from Adam Neale in 1783) **(plates 21-23)**. The only plant which Oliver could not identify, and which Robson identified incorrectly, was *Gentiana verna.* Robson did not have any specimens of *G. verna* in his herbarium. This plant has become the symbol of Upper Teesdale. Previously, it had only been recorded in the British Isles from Western Ireland. The discovery of *G. verna* in Upper Teesdale will be discussed in detail later. I can only think that, having gathered fresh ("recent") material of these five species in 1796, and not being fully aware of what was going on in this, the first year of his "arrangement" with Oliver, Binks formed the misconception that he had first found and brought to notice these five plants from Upper Teesdale. It has to be said that in 1796, the first year that Oliver and Harriman sent duplicates to Robson, Oliver and Harriman were probably almost equally in the dark, a pattern not yet having been established for sending plants up for *English Botany*. However, Binks apparently continued to nurse this grievance. Perhaps the failure to acknowledge him in *The Botanist's Guide* lay at the root of his feeling of injustice, given that he did indeed first find and bring under notice several plants from Upper Teesdale. Harriman kept Oliver in the dark about *G. verna* (see below). However, the two situations are not equivalent.

There are just two more plants which I wish to consider in this chapter, namely *Epilobium alsinifolium* Vill. and *Hippocrepis comosa* L. In 1810 Backhouse Snr. collected *E. alsinifolium* on Meldon Fell **(pl. 7)**. Lightfoot (1777,199-200 and plate X) only recognised *E. alpinum* L., which was subsequently split into *E. alsinifolium*

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[66] Edward Robson's manuscript *Plantae Dunelmenses* dated 22/5 M° 1794, p.20. In the library of the Darlington and Teesdale Naturalists' Field Club, Darlington.

Plate 21. *Cistus marifolius* (*Helianthemum canum*) in the herbarium of Edward Robson at Sunderland Museum.

Cistus marifol. L. & E. B.

Cistus clusii

Crowley 16/28

Crowley - Fec
VE. 798

Cistus marifolius. L. & B. E.

Plate 22. *Bartsia alpina* in the herbarium of Edward Robson at Sunderland Museum.

Bartsia alpina.

Teesdale. 68

Plate 23. *Dryas octopetala* in the herbarium of Edward Robson at Sunderland Museum.

No 2

From A. Neale.
1783.

No 2.

No. 2.
Ao. 1798

L. Pitchin
near Marshall
Yorkshire

Dryas octapetala.

{ No 40
Near Middleton
From D. Oliver VIII. 1796

and *E. anagallidifolium* Lam. Sowerby's figure of *E. alsinifolium* in *English Botany* (*t.*2000) is curiously dated 1 April, 1809. In the undated letter which Winch received from Backhouse Snr. on 12 August, 1811, Backhouse Snr. states: "...I have sent some specimens of Epilobium which I gathered in a mossy rivulet on Cronkley Scar. Shall be glad to know whether it be alsinifolium..." [67] As Backhouse Snr. required help to determine the *Epilobium* that he gathered on Cronkley in 1811, it is hardly likely that he identified the plant on Meldon Fell by himself in 1810. Given Binks's association with Meldon Fell, I would suggest that he first found it there and brought it to Oliver's notice.

Amongst the records which Backhouse Snr. sent Winch in his letter of 25 [sic?] July, 1811, at the request of Robson and William Backhouse, is: "Hippocrepis comosa Cronkley Fell Yorks." [68] Winch must have queried this record because in the undated letter which Winch received on 12 August, 1811, Backhouse Snr. states: "...I examined the style of Hippocrepis & have no doubt of its being comosa. I have enclosed a few specimens for thy satisfaction..." **(pl. 24)**. Cronkley Fell, where it still flowers sporadically (I. Findlay, pers. comm.), remains the most northerly site in the British Isles for this species, and *H. canum* (Bradshaw, 1970:143). In the Backhouse herbarium at the Royal Botanic Garden, Edinburgh, there is a sheet of *H. comosa* labelled: "Hellbeck [sic] near Brough, E. Robson 1810" **(pl. 17)**. This sheet follows the pattern already explained whereby Robson gave Backhouse Snr. duplicates of plants which he and Binks had failed to find in Upper Teesdale in 1810. It could, therefore, indicate that Binks and Backhouse Snr. were looking for *H. comosa* on Cronkley Fell in 1810. It will be recalled that Binks sent Robertson a specimen of *H. comosa* in 1814 but it was not in flower. It could also mean that they visited Hillbeck

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[67] Ref. W2.118.
[68] Ref. W2.115. Winch replied on 24 [sic?] July, 1811.

Plate 24. *Hippocrepis comosa* collected by James Backhouse Snr. on Cronkley Fell in 1811 for Nathaniel J. Winch. These specimens are in the herbarium of Nathaniel J. Winch at the Hancock Museum, Newcastle upon Tyne.

Hippocrepis comosa
Crowsley Fell
J. B

Scar, from where the plant was already known,[69] in 1810 and failed to find it. As *H. comosa* was known from Cronkley *by* 1811, I suggest that Binks and Backhouse Snr. were looking for it there in 1810. It had been found prior to 1810 and Oliver had identified it. That Oliver knew Hillbeck Scar is suggested by two gatherings in Robson's herbarium. Both are labelled in Oliver's hand. The first is: "Berberis communis [70] Hillbeck Wood near Brough Westmorland" and the second: "Rhamnus catharticus [*R. cathartica* L.] male plant Hillbeck Wood near Brough We [Westmorland]." Oliver may have been able to identify *H. comosa* on Cronkley Fell because he knew it from Hillbeck (Helbeck) Scar. It can be confused with *Anthyllis vulneraria* L. (I. Findlay, pers. comm.). That Backhouse Snr. gives Oliver as the authority for the record of *Leontodon palustre* but not *H. comosa* is, I believe, explained by Smith giving only two sites for the former in his *Flora Britannica* [71] (Smith, 1800:823), but his describing the latter as "Plentiful in Kent, Cambridgeshire, at Marham in Norfolk, and most chalky counties" (Smith, 1800:778). In his *Historical Recollections* Backhouse Jnr. makes no claim to his father having discovered either *H. comosa* or *E. alsinifolium* in Upper Teesdale.

Binks's role in the botanical discovery and floristic recognition of Upper Teesdale will now be reviewed in the light of the roles of Oliver, Harriman and Robson.

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[69] There is a gathering made by Harriman from this site in the (Winch) herbarium at The Hancock Museum, Newcastle upon Tyne. As Harriman gave up botany in 1806 or 1807, this gathering clearly predated 1810.

[70] I assume that *B. vulgaris* L. is intended.

[71] This work was widely used. Edward Robson annotated his set, which is in my personal possession, as a catalogue of his herbarium. The set which belonged to Winch and which is annotated by him, is in the library of the Linnean Society of London.

CHAPTER 3

WILLIAM OLIVER (1760?-1816) SURGEON OF MIDDLETON-IN-TEESDALE

William Oliver was a native of Hawick in Roxburghshire [1], in the border country between Scotland and England. He was baptised on 12 June, 1761,[2] and was the youngest of the three children of Robert and Jean *née* Scott.[3] His brother, George, and his sister, Margaret, were both baptised in Hawick, on 23 June, 1756, and 29 December, 1757, respectively. William's father, Robert, was a shoemaker.[4] It would appear that William's paternal grandfather was a cordiner,[5] a high class shoemaker, and his great grandfather a shoemaker, both in Hawick (Oliver, 1982: 51, 88; Wilson, 1850: 96, 102). As skilled tradesmen, they would be in reasonable circumstances (A. Kenworthy, pers. comm.). Indeed, they may have been quite well placed.[6] William's mother, Jean, was the daughter of William Scott, who owned a number of houses in Hawick,[7] in addition to his own. As a man of some means, one would expect him to pay the Scottish House Rent Tax and he is, indeed, to be found, for example, in the

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[1] Middleton-in-Teesdale Register of Baptisms for the year 1801. Entry for son, William, born 3 September, 1800. Details under "Names of Parents". Durham County Record Office ref. EP/MT1/5.
[2] *The Oliver Society Magazine*, Issue I I, p.12. 1979.
[3] See note 3/2 above regarding siblings, and will of William Oliver regarding parents. Will ref: DUASC., Durham Probate Records, will of William Oliver, 1817.
[4] Oliver (1982:51) mentions a Robert Oliver, shoemaker, in 1775. On p. 88, Robert Oliver, shoemaker of Hawick, is shown as William's paternal grandfather. I, therefore, think it reasonable to assume that Robert Oliver, shoemaker in 1775, was William's father. See also note 6 below.
[5] A cordiner or cordwainer made shoes with Spanish cordovan leather which was pliable and fine-grained. It was originally made from goatskin and now from horsehide. " SIR W. SCOTT Shoes of Spanish cordwain fastened with silver buckles " (Brown, 1993).
[6] A Robert Olypher, cordiner, contributed four pounds in 1694 to the cost of a new church bell, and a "Robert Olypher, shoemaker, elder (the cordiner's father?),.." twelve shillings. Robert Oliver (William's father?) of Burnflat in Hawick acquired ten acres of the common in 1777, and Robert Oliver (the same?), John Laing and Thomas Turnbull acquired four acres (Wilson, 1850: 96, 102, 164). If Robert Olypher the elder, shoemaker, and Robert Olypher, cordiner, were William's paternal great grandfather and grandfather respectively, Robert Oliver, William's father, may have been a cordiner rather than a shoemaker.
[7] Mentioned in William Oliver's will. See note 3/3 above.

survey for the period 5 July, 1778, to 5 April, 1779.[8] There is only one William Scott mentioned in this survey and he is described as a surgeon. In Wallis and Wallis (1988: 530) there is an entry for a William Scott as follows: " b. 1720 a. 1791...MD(A[berdeen]) Physician, Surgeon...Hawick, Berwicks [sic] [9]..." Anderson (1898: 125), in his *Fasti Academiae Mariscallanae Aberdonensis*, shows that a William Scott was recognised by the award of an MD in 1771, when he was fifty-one years of age. He is described as " An eminent physician and surgeon in Hawick, where he had practised for thirty years. Rec. by Professor Kennedy. [Contrib. to *Med. Com.*,[10] IV., V., VI.]. " I am in no doubt that William Scott was William Oliver's maternal grandfather. Wilson (1850: 84-85), in his *Annals of Hawick*, refers to a "William Scott, docter,.." in 1670 and a "Wm. Scott of Harwood, apothecary,.." in 1694 (pp. 94-96). The Scott family could well have been medics for as long as the Olivers had been cordiners/shoemakers. It should be pointed out in connection with Scott's MD from Aberdeen that, although the great majority of such MD's were awarded in response to a certificate attested by one or two physicians, William Scott is one of the minority accepted on the basis of his professional reputation without the usual certificate. Professor William Kennedy, who recommended him, was not himself a medical man but Professor of Greek (H. J. M. Symons, pers, comm.).

It will be demonstrated that Oliver became a surgeon. Loudon (1986: 35) states that: " The typical surgeon or surgeon-apothecary was a grammar school boy, and his success at school was measured in terms of the extent of his reading in the classics. He left school between the ages of twelve and fifteen with at least some knowledge of Latin and often a smattering of Greek. Then he became an apprentice." A knowledge of Latin was also, of course, a very useful asset to a botanist. That Oliver attended the

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[8] Scottish Record Office: ref. E326/3/55.
[9] Roxburghshire, now the Borders Region of Scotland.

"English School" (apparently a preparatory one) in Hawick, followed by Hawick Grammar School, can be in little doubt. Hawick Grammar School was endowed and, therefore, "...in a better position than many of the smaller towns and attracted scholars from a distance,.." (Anon, 1902: 67-69). Oliver would have been taught the principles of French, Latin, and Greek; English grammar and composition; ancient and modern geography; history and Roman antiquities; drawing and book-keeping; mensuration [11] and navigation (Vernon & McNairn, 1911: 123). It would seem that Oliver had a good school education.

To come to Oliver's apprenticeship. Unusually, there is no entry for Oliver in Wallis and Wallis's *Eighteenth Century Medics (subscriptions, licences, apprenticeships)*, 1988. I have also checked the Inland Revenue apprenticeship records (Burnby, 1977: 145-194) at the Public Record Office in London for the years to March, 1784,[12] again without success. I conclude that no premiums were paid in connection with Oliver's apprenticeship. Why? Because Oliver became his maternal grandfather's pupil. Oliver's mother, Jean, was William Scott's heiress: as his daughter she was in receipt of the life rents from the houses in Hawick.[13] I conclude that Jean was William Scott's only child. In order to carry on the Scott medical dynasty, Scott treated Oliver as his own son and took him on as a pupil. Burnby (1977: 162) remarks that Scottish **physicians** regularly took apprentices, which was not the case in England, and Loudon (1986: 40) that " To have served under a master with a good reputation was a great advantage. " We have seen that William Scott certainly enjoyed a good reputation.

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[10] *The Medical and Philosophical Commentaries.* " By a Society in Edinburgh; 5 volumes now completed " (Simmons, 1779: 220).
[11] The action or an act of measuring. The part of geometry that deals with the measurement of lengths, areas, and volumes (Brown, 1993).
[12] Index of apprentices' names 1763 to 1774. Ref: IR 17: 45. Registers from April, 1774, to March, 1784 inclusive. Refs: IR 1/59 /60 /61 /62. Public Record Office.
[13] Details from Oliver's will. See note 3/7 above.

It is likely that Oliver started his pupillage under Scott when he was fifteen years of age. The normal term was seven years (Lane, 1985: 72). However, " Apprenticeships were usually shorter in Scotland than in England because of course the Elizabethan writ of 7 years did not run there " (Dr. J. G. L. Burnby, pers. comm.). From 1780 until 1783, Oliver attended (winter) sessions at Edinburgh University, as will be discussed later. This means that his pupillage ran from approximately 1775 until 1780. If he was not at Edinburgh University and the Royal Infirmary, Edinburgh, full-time from 1780 until 1783 he no doubt continued helping his master after his pupillage had strictly finished until he got his own business in Middleton-in-Teesdale (see below). It is my contention that Oliver was already a botanist when he arrived in Middleton-in-Teesdale straight from Hawick in 1783, and that the principal credit for the discovery of the " Teesdale rarities " is due to him. It is important to establish that Oliver had already botanised widely in Upper Teesdale *before* Harriman arrived in Upper Teesdale as a botanist in 1796, since it was in 1796, following Harriman's arrival, that the " Teesdale rarities " began to become known.

In the absence of clear proof that Oliver arrived in Upper Teesdale as a botanist, I have examined his medical training as a pupil and a student to see if there is sufficient circumstantial evidence to corroborate my contention. Oliver may have been attracted to botany as a young boy, by no means an unusual occurrence. I, myself, took up botany when I was about nine years of age, under the influence of a school teacher. However, not unsurprisingly, no evidence of Oliver having done this has been found.

An examination of the technical training Oliver received during his pupillage is also fraught with difficulties. Lane (1985: 74) points out that "...relatively little first-hand information can be discerned... " about this subject because of the paucity of primary sources. Further, C. Lawrence (pers. comm.) remarks that very little is known about the mechanics of learning with regard to apothecaries and apprentices. However, it is

accepted that "...Botany and Medicine have in the past been so closely allied that it is not surprising that many physicians, apothecaries and druggists have been much engaged in the study of plants " (Burnby, 1974: 4-5). Lane (1985: 77) is more specific: she comments that it was characteristic of *many* eighteenth century practitioners that they developed an interest in botany. However, the fact remains that *most* such medics did not become botanists. Therefore, it cannot be taken for granted that, because Oliver underwent medical training, he became a botanist.

To consider what we do know about Oliver's pupillage: I have speculated that his master, William Scott, was part of a medical dynasty, based on Wilson (1850: 84-85) who refers to Dr. William Scott, who had been a bailie [14] in Hawick in the period from 1670 to 1680, and the apothecary in 1694, William Scott of Harwood, who was well off. These two Scotts could well have been one and the same person. Throughout the eighteenth century the economy of Roxburghshire was based entirely on agriculture. Hawick was a small town with a population of 2928 in 1795 (McCracken, 1949: 411-412). This compares with 796 for the township of Middleton-in-Teesdale in 1801 (Parson and White, 1827 I: 269). Thus, Hawick was a small rural town, where as Middleton-in-Teesdale in the 1780's was a large, isolated village. If the Scotts were indeed a medical dynasty in Hawick, which I suggest they were, common sense tells me that there would be a tradition of knowing where the plant simples grew in the vicinity of Hawick. The existence of an apothecary in Hawick in the late seventeenth century is significant here. Why involve a middleman, namely a druggist or his precursor, if the plant simples were to hand? Those plant simples not to be had locally would, of course, have to be purchased from a druggist. Of course, it would have to be economic to collect plant simples in terms of the apprentice's time and his other duties for his master. However, I believe this to be a realistic scenario for Oliver and

Scott. It is interesting to note that *Arbutus uva-ursi* is recorded from Heptonstall near Halifax in Turner and Dillwyn's *The Botanist's Guide through England and Wales* (1805: 688). In Watson (1837: 655) we read that *A. uva-ursi*: " (Is no longer found near Hepstonstall, one of the medical gentlemen of that neighbourhood having made root-and-branch work of it. *Mr. Leyland*...) ".

I would regard Oliver's collecting, and, therefore, being able to identify, plant simples as constituting the strongest evidence that he became interested in field botany prior to 1783. It is interesting to note that Scotland's largest tree and shrub nursery about this time was that of Dickson of Hassendeanburn near Hawick, which was apparently founded in 1728 (Henrey **II**: 398). It was not unusual at this time for masters to have old herbals in their libraries. Of course, these herbals used the cumbersome pre-Linnaean polynomials and there was no easy, systematic method of identification.[15] However, they did include figures, some of which were remarkably good **(pl. 25)**. Edward Robson was still using Thomas Johnson's edition of Gerard's *Herbal*, 1633, 1636, and Parkinson's *Theatrum Botanicum*, 1640, for their figures at the end of the eighteenth century (see Edward Robson's revealing notes on his sheets of *Thymus pulegioides* L. and *Pulmonaria officinalis* L.) [Later Sir] Joseph Banks (1743-1820) as a young man made use of his mother's Gerard's *Herbal*. An interest in natural history " was part of the genteel cultural ambience in which Banks lived and moved... " (Gascoigne, 1994: 83). Apparently, it was not unusual for botanists contemporary with Robson to consult these figures in order to confirm their identification of a plant. In 1761 John Coakley Lettsom (1744-1815) was apprenticed to Abraham Sutcliff, a surgeon and apothecary in Settle in the Yorkshire dales (Abraham, 1933: 20). Lettsom was a Quaker and, like Backhouse Snr., he wrote a

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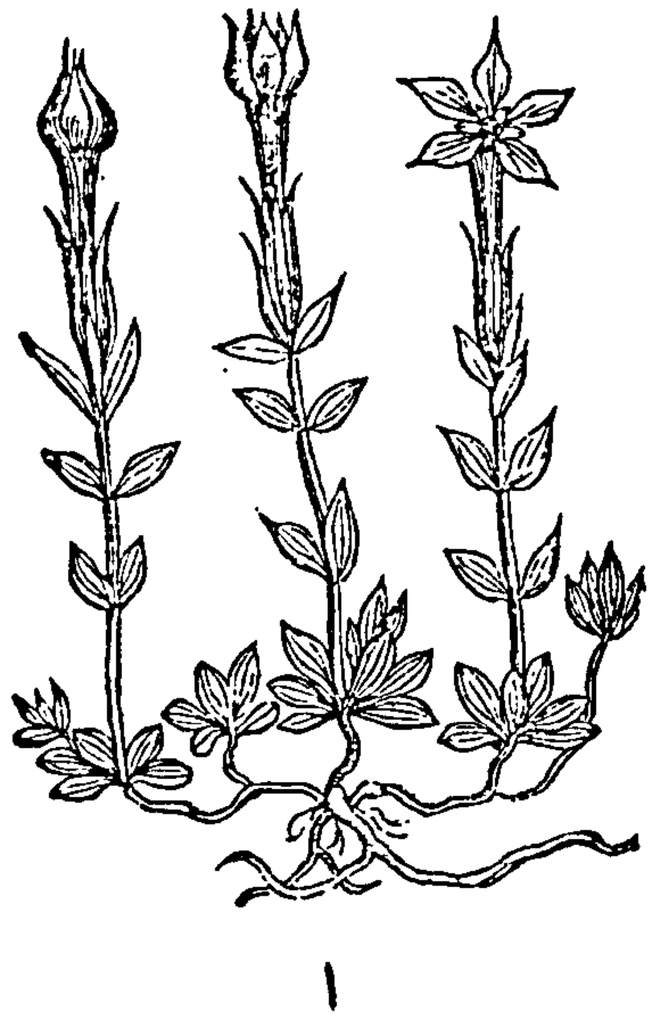
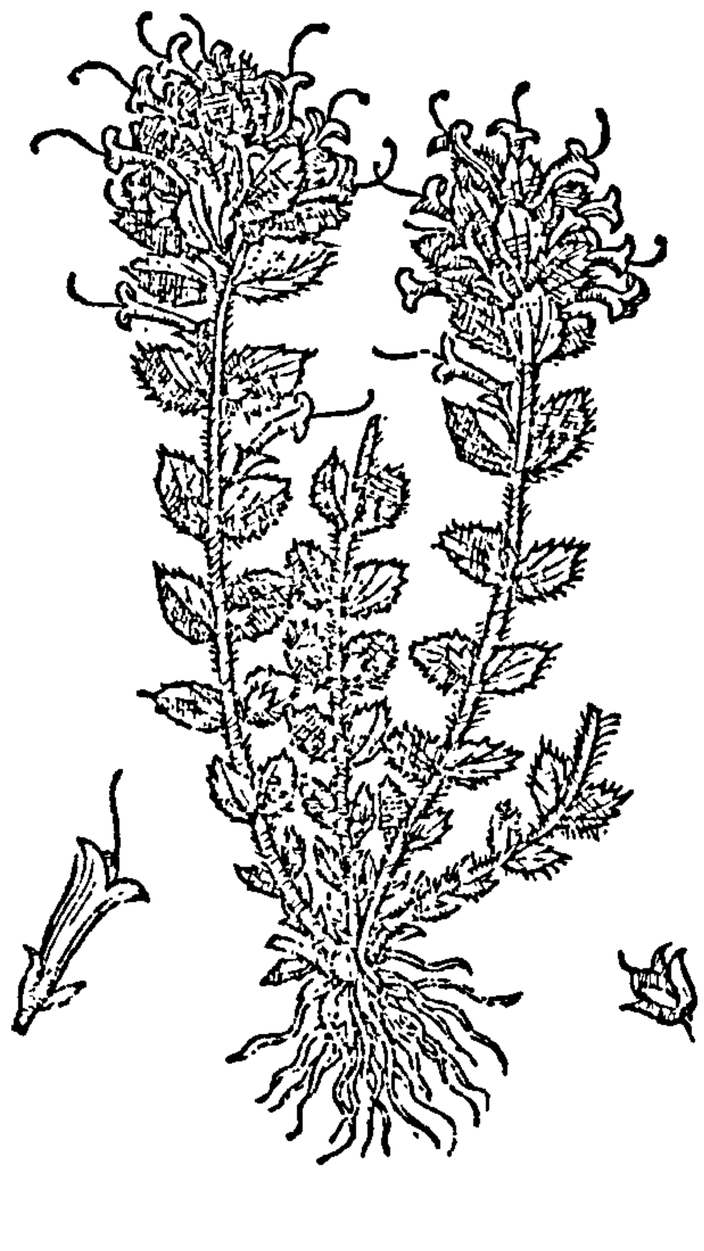
[14] The chief magistrate of a barony or part of a county (Brown, 1993).
[15] Today we take dichotomous keys for granted!

Plate 25. Figures from Gerard's *Herball*: the 1633 edition. No. 1: *Gentiana verna*, no. 2: *Bartsia alpina*, no. 3: *Dryas octopetala*.



1



2

3

manuscript autobiography entitled *Recollections, or Reminiscences*, although in Lettsom's case it only ran to thirty-one pages, some of which are blank. On page twenty of this manuscript we read:

> My most favourite study indeed [whilst at Settle], was Botany; to assist me in it, I borrowed Gerard's herbal: In my excursions in the vicinity of Settle I collected many good specimens of rare plants, from which I made an Hortus siccus:..[16]

I am in little doubt that Lettsom borrowed Gerard from his master, Sutcliff. The first edition of Gerard was published in 1597. Two further editions appeared in 1633 and 1636. Thus, Lettsom was using a work at least one hundred and twenty-five years old to identify his plants. Even if Sutcliff possessed the 1724 edition of Ray's *Synopsis*, which is unlikely if he was not a botanist, Lettsom may have preferred to use Gerard because of its figures. Amongst the books left by the Staffordshire apothecary Henry Fogg (1707-1750) was Lyte's *Herball*, 1595 (Lane and Tarver, 1993: 194).[17] The Cambridge apothecary Thomas Day (d. 1680) left Gerard's *Herbal* (Whittet and Newbold, 1978: 116). Longstaffe (1854: lxxxviii) refers to the will of a Merchant and Apothecary of Newcastle-upon-Tyne dated 22 January, 1639, which includes bequests of Gerard, and Turner's Herbal (1551, 1562, 1568). If Gerard was in common usage by contemporary and later apothecaries it is hardly surprising that so many of them took up botany, given its figures and descriptions.

I know that Oliver was a botanist at Middleton-in-Teesdale. He clearly had a predisposition for botany. To extrapolate backwards, given the high botanical content in his training as a surgeon, it would not be at all surprising if this proclivity blossomed whilst he was Scott's pupil (1775?-1780). Indeed, as already mentioned, it may have blossomed whilst he was a young boy. One wonders if his maternal grandfather encouraged him.

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[16] The manuscript is with the Medical Society of London in London. There is no specific reference.
[17] Third edition (Henrey I: 257).

What other duties would Oliver perform of a botanical nature as a pupil? When George Crabbe (1754-1832), the poet and botanist and contemporary of Oliver's, was an apprentice in Woodbridge in Suffolk from 1771 to 1774/5?, he was employed mainly in " ' putting up prescriptions and compounding medicines,..' " (Blackburne, 1972: 40). Thus, his master did not purchase all his compound drugs from the druggist, if, indeed, he purchased any at all. Dr. J. G. L. Burnby (pers. comm.) points out that "...even if [apothecaries] obtained their drugs [simples] from a druggist, they still did their own compounding (or the apprentice did) during which operations they would have to be assured that they were using the right drugs, and so examine them closely. Some of course could have bought all their drugs, compound and simple, but this is not necessarily so. " Risse (1986: 72) talks about the hospital apothecary: "...The job carried substantial responsibilities in a period when there were still many substances employed in treatment and multiple ways of preparing them. It was felt that hospital apothecaries especially needed to pay careful attention to their compounding, since even ' the smallest error may produce the most destructive consequences. ' " He is discussing the job at the Royal Infirmary, Edinburgh, in the period after 1747. This whole subject of the origin of the practitioners' drug supplies at this time is, like the technical training of the apprentice, shrouded in mystery. Porter and Porter (1989: 282) pose the question "...How many [physicians and apothecaries] -in 1700, 1750, or 1800-were still drying their own herbs or distilling their own essential oils? Or were the great majority increasingly buying practically all their materia medica ready-made from wholesalers and middlemen?.. " Indeed, in terms of where the wholesalers themselves obtained their domestic supplies it would appear that nothing is known of the chain below the commercial suppliers of simples (R. K. Aspin, pers. comm.). Referring to Corbyn and Partners (see below), Porter and Porter (1989: 289) state:

...(unfortunately, we have hardly any information as to how Corbyn obtained his basic supplies).

What kind of simples could be purchased from the wholesale druggist at this time? **Plate 26** is a copy of a printed list of simples on sale in London in the mid-eighteenth century.[18] It is the *Catalogus Pharmacorum quae apud Pharmacopolas Londinenses generaliter venalia prostant* (Catalogue of medicines which are generally made available for sale at London chemists [19]) of Corbyn and Partners, who " were one of the number-probably a few dozen-of large London firms of druggists which emerged during the eighteenth century " (Porter and Porter, 1989: 293). From an annotation on the Catalogue, it is clear that it was still in use in 1754. It will be noted that the simples are divided into the standard classifications, namely, plants, animals and minerals etc. The printed plant simples listed are roots (54 types), woods (7), barks (10), herbs (13), flowers (18), seeds (61), and fruits (7) etc. Thus, as Dr. J. G. L. Burnby (pers. comm.) points out, the apprentice would have to examine these simples closely to be sure that the compound drugs were properly made up. In so doing, the apprentice, perhaps despite himself, must have gained some knowledge of botany. Such an environment would, of course, act as a catalyst in the blossoming of any latent interest in botany in the apprentice.

I want now to examine the impact of Linnaeus on medical botany. As a good, up-to-date master, William Scott would have had *Lectures on the Materia Medica* by Charles Alston, 1770 (published by John Hope), which includes 304 vegetable simples, and *Lectures on the Materia Medica* by William Cullen, 1773 (C. Lawrence, pers. comm.). Alston, Hope and Cullen all held chairs at Edinburgh University. Both

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[18] The Wellcome Trust, the Wellcome Institute for the History of Medicine. Ref: Western MS 5451/1 *Catalogus pharmacorum*. I am grateful to Richard K. Aspin for pointing me in the right direction with regard to bringing this document to light.
[19] A. Henderson (pers. comm.).

Plate 26. Corbyn and Company's *CATALOGUS Pharmacorum quae apud Pharmacopolas LONDINENSES generaliter venalia prostant*, still in use in 1754.
The Wellcome Institute for the History of Medicine, London.

CATALOGUS Pharmacorum quæ apud Pharmacopolas *LONDINENSES* generaliter venalia proſtant.

Vegetabilia.

R Adix Acori Veri, vel Calami Arom.
Vulgaris
Agarici
Altheæ
Anchuſæ
Angelicæ
Ariſtoloch. Rot.
Long.
Ari
Aſari
Auriculæ Judæi
Biſtortæ
Caſſumuniar.
Chinæ
Conſolidæ
Contrayervæ
Coſti
Curcumæ
Cyperi Long.
Rotund.
Dictamni Albi
Ellebori Albi
Nigri
Enulæ
Eringii
Galangæ
Lignum Guajaci
Rhodii
Aloes
Santalli Albi
Flavi
Rubri
Saſſafræ
Cortex Aurantiorum
Caſſiæ
Elatherii
Eſſulæ
Granatorum
Guajaci
Limonum
Peruvianus
Saſſafræ
Winterani
Herba Adianthi Albi
Nigri
Abſinthii Roman.
Ceterach.
Chamæpytis
Cuſcuta
Dictamni Cret.
Junci Odorati
Malabathri
Anethi
Angelicæ
Aniſi
Attriplicis
Bardanæ
Cardamomi
Cardui
Carthami
Carui
Cenſor. Nigr.
Ciceris
Cichorii
Citrulli
Chermes
Coculus Indi
Coriandri
Cydoniorum
Cubebarum
Cucumeris
Cucurbitæ
Cymini
Dauci Com.
Cretici
Endiviæ
Fœniculi Dulcis
Fœnugræci
Grana Paradiſi
Fructus Caſſiæ Fiſtul.
Capita Papav.
Colocynthidos
Cupreſſi
Dactyli
Gallæ
Myroballani
Omnes
Nuces Vomicæ
Glandulæ Querci
Cupulæ
Tamarindi
Balſam. Capivi
Gileadenſæ
Peruanum
Tolutanum
Gummi Ammoniacum
Animi
Arabici
Aſſa Dulcis, vel
Benzoin
Fœtida
Bdellium
Camphora
Caranna
Ceraſorum
Colophonia
Succus Acaciæ
Aloes Com.
Succotrin.
Chermis
Glycyrrhizæ
Hypociſtidis
Mannæ
Opium
Sanguis Drac.
Viſcus Aucup.

Animalia.

Bufones
Cantharides
Cochinella
Millepedes
Scincus
Scorpiones
Viperæ

Partes Animalium.

Adeps Viperarum
Hominis
Urſi
Album Græcum
Bezoar Orient.
Occident.
Caſtoreum Nov. Ang.
Ambra Griſea
Arſenicum Alb.
Flav.
Antimonium
Bitumen Judaic.
Bolus Communis
Armeniacus
Borax
Cinabar Nati
Corallina
Corallium Alb.
Rubr.
Folia Auri
Argenti
Ærugo Æris
Lapis Amethyſtus
Calaminaris
Granatus
Hæmatites
Hyacinthus
Hybernicus
Magnes
Sapphyrus
Smaragdus
Topazius
Talcum Venet.
Gemma

Galangæ

Gentianæ

Glycyrhizæ

Hermodact.

Jallapii

Ipecacuanæ

Iridis Florent.

—Mei

Nardi Indicæ

— Celticæ

Osmund. Reg.

—Pæoniæ Maris

Fœminæ

—Polypodii

—Phu

Pyrethri

Rhabarbari

—Rhapontici

Rubiæ Tinctor.

Sarsæ

Salep

Satyrii

Scorzoneræ

Serpentar. Virg.

Scillæ

Tormentillæ

Turpethi

Valerianæ

Zedoariæ

Scordii

Sennæ

Polii

Viſci Quer.

Aliæq; frequenter in uſu.

Flores Authûs

Balauſtiorum

Boraginis

Bugloſſi

Betonicæ

Culendulæ

Caryophillorum

Chamæmeli

Cyani

Lavendulæ

Lilliorum Convall.

Mari Syriaci

Meliloti

Pæoniæ

Paralyſeos

Roſarum

Sambuci

Stœchados

Semen Acetoſæ

Agni Caſti

Alkekengi

Altheæ

Amniscos

Amomi

Fœnugræci

Graña Paradiſi

Hordei Gall.

Perlat.

Hyoſcyami

Juniperi

Lauri

Lactucæ

Lythoſpermi

Lini

Melonum

Myrti

Napi Dulcis

Nigellæ

Plantaginis

Papaveris Albi

Pæoniæ

Petroſellini

Macedon.

Piperis Longi

Portulacæ

Pſyllii

Rutæ

Sagu

Santonicæ

Sinapii

Seſeleoes

Staphidis Agriæ

Thlaſpios

Urticæ

Ceraſorum

Colophonia

Copal

Elemi

Euphorbium

Galbanum

Colat.

Gambogia

Guajaci

Juniperi

Labdanum

Lacca

Maſtiche

Myrrha

Olibanum

Opopanax

Pix Burgundic.

Liquida

Sicca

Reſina

Sagapenum

Sarcocolla

Scamonium Alep.

Smyrnæ

Senega

Styrax

Tacamahaca

Terebinthina Oma.

Thus

Tragacanthi

Occident.

Caſtoreum Nov. Ang.

Ruſſiæ

Cera Alba

Flava

Chelæ Cancrorum

Cornu Cervi Raſ.

Calcin.

Cranium Human.

Dens Apri

Ebori Raſuræ

Exuviæ Serpentis

Icthyocolla

Mandibula Lucii

Margaritæ

Mell

Moſchus

Mumia

Oculi Cancror.

Os e Corde Cervi

Os Sepiæ

Sevum Cervin.

Sperma Corti

Vetrucæ Ped. Equin.

Ungula Alcis

Zibethum

Mineralia, &c.

Alumen Rupeum

Commun.

Talcum Venet.

Comm.

Limat. Martis

Lithargyrus

Mercurius

Nitrum

Petroleum

Piſſeleum Ind.

Pompholix

Sal Armoniacum

Gem.

Spodium

Succinum

Sulphur. Comm.

Vivum

Terra Sigillata

Japanica

Tartarum Album

Rubrum

Rhenanum

Tincar

Tutia

Vitriolum Album

Viride

Romanum

Aqua Spadenſis

Dog. Pyrmont. Bat. No. 1.

Piridulæ

Fiſtulæ

Alston and Cullen's works take account of Linnaeus.[20] The sixth edition of the *Edinburgh Pharmacopoeia*, published in 1774, "...appended the Linnean [sic] morphological characteristics to the names of almost all of the vegetable drugs" (Cowen, 1957: 131). " The seventh edition of the Edinburgh Pharmacopoeia (1783) continued this practice, usually adding the species name parenthetically..." (Cowen, 1957: 131). Morton (1986: 16, 28 (note 13)) refers to Hope's work in 1782-83 on a proposed new Edinburgh Pharmacopoeia which was published in 1786. He states that: "Hope ensured that, for the first time, the Linnaean botanical names of plants were included." This is not the place to clarify this apparent inconsistency. Thus, two standard medical works, published in the 1770's, recognised Linnaean methods. Other medical works published at this time, for example, Lewis (1785) and Meyrick (1790), incorporated Linnaeus's methods for the first time. Practically, Lane (1985: 75) refers to a contemporary Bolton practitioner's apprentice who studied hard and in the first six months of his term ",..learned the Linnean [sic] names and doses of drugs;.."

Thus, Oliver would be amongst the first medical apprentices in Britain who had to master the two Linnaean systems. However, both these systems made botany easier for the medical apprentice. Linnaeus's binomial system of nomenclature dispensed with the cumbersome and difficult polynomials, as employed in, for example, Gerard's *Herbal*. And an easy to use, artificial system of classification, based on the number of sexual parts in the flower and the way in which they are arranged, replaced inevitably complicated attempts at a natural system of classification, for example, that of John Ray (1627-1705). The arrangement of the plants in Gerard's *Herball* of 1597 is that of Mathias De L'Obel (1538-1616) who worked out a classification based mainly on

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[20] The 1770 work refers to the following works by Linnaeus: *Flora Lapponica*, 1737a, *Hortus Cliffortianus*, 1737b, and *Genera Plantarum*, sixth edition 1764. The 1773 work refers to Linnaeus's *Materia medica*, Liber I, 1749. " Although Liber 2 and Liber 3 were published in 1763, they were unauthorised publications...Linnaeus himself did not complete the work " (Collins and Wilson, 1997: item 566).

foliar characters (Arber, 1990: 129, 176). In his *Theatrum botanicum* of 1640 John Parkinson (1567-1650) "...divided all the plants then known into seventeen classes or tribes - the sequence in which these classes were placed having, in most cases, no meaning at all. A few of his tribes are natural, but many are valueless as expressions of affinity " (Arber, 1990: 174). Much reliance must, therefore, have been placed on the figures in the herbals and their quality. It is clear that Linnaeus made it a lot easier to identify a plant.

Having considered how Oliver would have encountered the Linnaean methods through the medical works that he would use in his pupillage and as a student, I now wish to examine the British floras themselves at this time. The first Linnaean flora of this country was published in the year Oliver was born, namely, 1760. It was John Hill's (1707-1775) *Flora britanica* [sic] (Henrey, 1975: 89). However, this flora does not adopt Linnaeus's system of nomenclature, "...nor, with any regularity, his specific [as opposed to generic] definitions " (Smith, 1824: xii). In 1762 a flora appeared in England, namely *Flora Anglia* by William Hudson (1734-1793), that used the Linnaean nomenclature as well as the Linnaean system of classification (Henrey, 1975: 89). Smith (1828: xiv) said of this work that it marked "...the establishment of Linnaean principles of botany in England, and their application to practical use. " However, Hudson's *Flora Anglia* was in Latin. The first such work to appear in English which similarly used the Linnaean systems of classification and nomenclature was *A botanical arrangement of all the vegetables naturally growing in Great Britain* by William Withering (1741-1799), in 1776. This was followed, a year later, by the first professedly complete work on the plants of Scotland, namely, *Flora Scotica* by Rev. John Lightfoot (1735-1788). This work incorporated both Linnaeus's methods. Henrey (1975, II: 156) in her *British Botanical and Horticultural Literature before 1800* (sixteenth, seventh and eighteenth centuries) states " During

the period covered by the present *History* there is only one published work devoted to the plants of Scotland, namely Lightfoot's *Flora scotica*, first issued in 1777. " She points out that previous to this work Robert Sibbald (1641-1722), an Edinburgh physician (Henrey, 1975, I: 153), had included a section entitled " *De plantis Scotiae tam indigenis quam hortensibus* " in his *Scotia illustrata sive prodromus historiae naturalis*, Pt. 2 (1684). Sibbald included some five hundred species of mainly lowland plants. Lightfoot dealt with some one thousand two hundred and fifty species of lowland and other plants (Bowden, 1989: 104). Lightfoot's *Flora Scotica* was a first in another respect: "...it described much of Scotland's *montane* [my italics] flora for the first time (Bowden, 1989: 104). This would make it particularly useful in alpine Upper Teesdale in the north of England. It is written in English, although the Linnaean generic and specific descriptions are in Latin. However, this would present no difficulty to someone with a knowledge of Latin such as that Oliver had. We have another link with John Hope of Edinburgh here. He is the first person whose help Lightfoot (1777: xii) acknowledges. Lightfoot had access to Hope's herbarium, together with his notes and observations. At this time the Linnaean system of classification was still only being taught in Britain by John Hope and Rev. Thomas Martyn (1735-1825), Professor of Botany at Cambridge (Morton, 1986: 11). Thus, following a succession of " firsts " by Hill, Hudson and Withering, we have the first Linnaean flora exclusively devoted to Scotland, written in English, and appearing in 1777. What better time for someone living in Scotland to take up field botany, and Oliver was in the middle of his pupillage! Surely this cannot simply be put down to coincidence.

I have indicated that Oliver brought Lightfoot with him when he arrived in Middleton-in-Teesdale in 1783. My reasons for believing this to be the case are as follows:

1. On 19 November, 1803, Harriman wrote to James Edward Smith as follows:

> ...When Mr. Oliver and I began to study lichens I borrowed Lightfoot's Flora for a few months till we [Oliver and Harriman] got Withering's Botanical Arrangements...I never saw Hudson's Flora...[21]

That Oliver and Harriman did indeed study lichens together is true. However, Oliver had been studying them for a number of years before he started to study them with Harriman. Further, Harriman was new to lichens when he started studying them with Oliver early in 1797. Harriman also omits to say that he borrowed Lightfoot from Oliver (see below). Clearly, Oliver did not have Withering, and it can be safely assumed that he also did not have Hudson.

2. On 21 June, 1797, Harriman wrote to Sowerby for the first time (previously, all the "Teesdale rarities" had been sent to Sowerby by Harriman (and Oliver) through Edward Robson) **(pl. 27)**.[22] It will be noted that Harriman, on behalf of himself and Oliver, sent up six species of lichen [23] to Sowerby for *English Botany*. None of these had yet appeared in *English Botany* (Hooker, 1833: 218, 219, 189, 218, 228, and 156 respectively). If one examines these six lichens [24] with Lightfoot, who recognised 103 lichens including a number of new ones, it is significant to note that in the case of five of them Lightfoot has something original to say:

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[21] JES refs: **22** ff.163/164.
[22] JS ref: 85/A72/f.48.
[23] Linnaeus used the single generic name *Lichen* (apart from a few in *Byssus* and *Mucor*) and accepted only about eighty species in it (Hawksworth and Seaward, 1977: 8). Smith used the Linnaean system of classification of lichens in the early parts of *English Botany*, but he "...was quick to realise the importance of Acharius' work and his ideas were rapidly introduced into *English Botany* (apart from his generic concepts which were largely not taken up in this work until its *Supplement*)..." (Hawksworth and Seaward, 1977: 10).
[24] It is interesting to note that four of these six lichens belonged to Linnaeus's group *Umbilicati, squalentes quasi fuligine* (navel-like (= having a small central depression and attached underneath by a central holdfast), roughened as if with soot), namely, *L. deustus, L. polyrhizos, L. torrefactus* and *L. miniatus.*

Plate 27 (two sheets). Letters from Edward Robson and John Harriman, both dated 21 June, 1797, to James Sowerby, who has annotated them. James Sowerby Correspondence, Natural History Museum, London.

(Dear Friend Derby Jan 21 Dec. 1797 —

Agreeable to my promise I now send five species of Thelict. Mosses for E. B. wch are not quite in flower, on wch account I think them better as they will open by the time they arrive — I have also put in another Spec. of the Lichen Cyniped. rium E. calc. (from Eden Deane) wch may help out g Cart — I have sent specimens of Jambles by me near Penrith, brot me by a botanical friend of mine at this place viz. Philip Harrison — Papaver Argemone — Lamium dissectum — Verbena — Aspia Lenen. Tripol. upsum var virid — Shall be glad to hear they arrive safe, in good condition & prove useful for Eng. Bot. — My friend Harriman sends with the above, several rare Plants wch I hope will be valuable — Remain

with much Respect
Thy Friend
Edward Robson

Dear Sir

I take the Opportunity to send you a few Specimens of Mosses which were gathered by Mr. Teesdale Surgeon of Middleton & myself — Viz. Orthotrichum Lyellii, Hedwig. & Hookeria lucens, Smith & Hookeria tricostata Hedwig & the

Lichens since Christmas — Dryas octopetala, on Crowkley Fell near Middleton, in the County Durham; Rubus Chamaemorus & ~~Viola tricolor~~ on Knowl-berry Fell, & Viola tricolor in a Field of Mole House Farm, in the Parish of Egglestone, in the County of Durham — Lichen decorticans, Lichen Lobyrhizos, & Lichen Granulosus, on Rhinstone Rocks on Crowkley Fell; Lichen Tonsellus & Lichen Cicha, on Rock-Rocks near Egglestone; Lichen miniatus, on Rocks near Middleton.

I am, Dear Sir,
Your humble Ser.
J. Ramsbottom

Viola Cutea—

B.M.
(N.H.)
9/M

My Address—
To The Rev. John Ramsbottom
at Egglestone,
in the
County of Durham

i. *Lichen tristis*

Lightfoot (1777: 885-886) describes this as a new species, under the name *L. corniculatus*. Withering (1796, **IV**: 43) includes Lightfoot's *L. corniculatus* under *L. tristis*. It would appear, therefore, that Harriman and Oliver received " Withering's Botanical Arrangements " sometime shortly before or in June, 1797. This would be the third edition which appeared in 1796 in four volumes.

ii. *L. deustus*

Lightfoot (1777: 861-862) suspected that Linnaeus's *L. deustus* was only a variety of his, Lightfoot's, new *L. crinitus* (Lightfoot, 1777: 860-861).

iii. *L. polyrhizos*

Lightfoot (1777: 864-866) felt it necessary to take " the liberty to alter, and, we hope, to amend, Linnaeus's specific characters of this lichen. "

iv. *L. torrefactus*

Lightfoot (1777: 862-863) describes this as a new lichen.

v. *L. miniatus*

Lightfoot (1777: 857-858) describes a new variety, namely, *L. miniatus* var. *complicatus*.

I must say that the elucidation of the above has proved very difficult for nomenclatural reasons because several works on lichens were published between Linnaeus's *Species plantarum* in 1753 and Lightfoot, and Lightfoot does not always make it clear when he is describing a new lichen.

The earliest unequivocal extant statement made by Harriman about his interest in lichens is in his letter to Sowerby dated 27 July, 1798, in which he states:

...It [the box] contains also a Specimen in Fruc. [fructification] of Lichen exilis, & of an other which may perhaps, be your Haematomma. I gathered the latter & several other very fine Specimens, above Twelvemonth ago, & have considered them as Specimens of a Var. of Lichen ventosus...[25]

This indicates that Harriman's interest in lichens started early in 1797 which fits in very well with Harriman's letter to Sowerby of 21 June, 1797. Early in 1797 Harriman had borrowed Lightfoot to study lichens pending receipt of Withering by Oliver and Harriman, shortly before or in June, 1797.

That five out of six lichens sent up to Sowerby on 21 June, 1797, had definite connections with Lightfoot clearly indicates that Lightfoot was used to identify them. What is more, the nature of the connections is such that there can be no doubt that the person who identified them was thoroughly familiar with Lightfoot, that is, he had been studying lichens with Lightfoot for a number of years. No way can this familiarity have been achieved in " a few months ". I am in no doubt that Harriman borrowed Oliver's Lightfoot so that he could try and catch up with Oliver and his knowledge of lichens. As they were to study lichens together, it would clearly have been best for Harriman to use the same work as Oliver, at least initially. In any event, it would appear that Harriman had no choice but to borrow Oliver's Lightfoot to study lichens, before Withering was received.

That Oliver had been studying lichens for a number of years alone is extremely significant. As has been indicated, the study of lichens at this time was still in its very early stages. Purvis *et al.* (1994: 1) recognise 1674 species as having been recorded in Britain at February, 1994. Lightfoot (1777) recognised 103 species in his *Flora Scotica*. For Oliver to have tackled this group by himself geographically isolated at Middleton-in-Teesdale, can only mean that he had a very sound grounding in the vascular plants. Lichens are (still) difficult

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[25] JS ref: 9/A25/f.50.

and one normally only progresses to them, and other non-vascular groups like them, for instance mosses, *via* a solid grounding in the generally easier vascular plants.

I am, therefore, satisfied that Oliver was a good botanist whilst alone at Middleton-in-Teesdale, and that his (only) flora was Lightfoot. This is further born out by *P. fruticosa, H. canum, B. alpina* and *G. verna* not being in Lightfoot, and Lightfoot indicating that *D. octopetala* had not yet been found in England, as discussed above.

3. That Oliver arrived in Middleton-in-Teesdale (in 1783) already a botanist is now demonstrated. If Oliver had taken up botany after he arrived in Middleton-in-Teesdale, the most obvious flora for him to have purchased was Withering's *A botanical arrangement of all the vegetables naturally growing in Great Britain* (first edition 1776; second 1787-1792 [26]), rather than Lightfoot's *Flora Scotica*, 1777. If he could purchase Lightfoot whilst at Middleton-in-Teesdale, then he could purchase Withering. That he actually used Lightfoot at Middleton-in-Teesdale means that he brought it with him, that is, he arrived in Middleton-in-Teesdale as a botanist, as did Harriman. However, Oliver arrived some thirteen years earlier.

4. It is apposite to make the point here that Oliver must have been as sure as he could be that he would settle in Middleton-in-Teesdale, a large but very isolated village, as opposed to the small rural town of Hawick. On 13 June, 1792, The Hon. John Byng (later Fifth Viscount Torrington) visited Middleton-in-Teesdale *en route* for High Force. He remarked: " I am here in that sort of wild country, and unvisited village that I wish to explore; and wherein to lose the memory of all the midnight follies, and extravagant foolish conversations of the Capitol "

and " These are primitive manners [those he experienced in the public house at Middleton-in-Teesdale] yet left in such a distant quarter of the Metropolis as this is, only visited by some (*foolish, romantic*) tourists, or shooters; else they are shut up in winter, or in snow; for the snow was not wasted till a month ago, and since that, the ground has been cover'd by hail stones! " (Andrews, 1936: 69, 71). It is reasonable to assume that Oliver felt confident that he could settle in such an isolated place because he was interested in the countryside and natural history and he could, therefore, make his own amusements. Oliver may also have had in mind thoughts similar to those of Robert Teesdale (*c.* 1740-1804) (1800: 37) when he said:

> I have travelled over, and scrutinised, at different times, the greater part of the county [Yorkshire]; and the part which is celebrated for the more rare plants, that is, Ingleborough Hill, and its neighbourhood, has been visited by almost all the curious botanists of the last and present age; notwithstanding, many plants may yet remain undiscovered, as it is well known by every practical botanist, that the more rare ones are extremely local, and of course are frequently overlooked by the most accurate observers. In fact, the botanizing of mountains is a laborious business; and they can only be minutely examined by persons who are *nearly resident* [my italics], as their visits should be frequent, and at all seasons of the year.

I now want to examine the time Oliver spent in Edinburgh, particularly from the point of view of the botanical experience he might have gained whilst there. Each session at Edinburgh University ran from November to April. Students taking Professor Hope's botany classes stayed on for the whole of the summer session which lasted from May to July (Rosner, 1991: 26, 113). Oliver attended the three university sessions 1780/81 **(pl. 28)**, 1781/82 and 1782/83. He studied anatomy and chirugery (surgery) in all three sessions, and chemistry and midwifery in the first and last sessions.[27] As Oliver had served a pupillage it would have been superfluous for him to have done *materia medica* (Rosner, 1991: 111-112). A study of Hope's botany class

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[26] The third volume of Withering dealing with the lichens etc. appeared in 1792.
[27] Matriculation entries for the sessions 1780/81, 1781/82 and 1782/83, Edinburgh University Library, University Archives, ref. Matriculations Da.

Plate 28 (two sheets). William Oliver's signature in the medical Matriculation Album of Edinburgh University for the session 1780/1781. Edinburgh University Library, Special Collections.

iscipuli D. Monro, D. Cullen, D. Hope, D. Black, D. Home, D. Grey

Young et D. Alex Hamilton Decr anno 1780

A

ry Addison Anat et Chir: Midwif

L. Anderson Edinr Anat et Chir: Mathem.

illiam Anderson Anat et Chir: Med: Pract.

ames Alexander Anat et Chir

n Alexander Anat et Chir: Med: Pract.

s Aomitlead Bot. Mat: Med: Med: Theor: et Pract. Clin: Lect.

mes Armstrong Anat et Chir

mes Athill Anat et Chir: Mat: Med: Chem: Med: Theor:

n Astbury Mat: Med: Anat et Chir Med. Pract. Nat: Chir Lect.

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lists for the years 1780 to 1783 inclusive shows that Oliver did not do Botany.[28] Further, he was not a member of the Society for the Investigation of Natural History (Allen, 1978: 483-493; D. E. Allen, pers. comm.). James Edward Smith read medicine at Edinburgh from 1781 until 1783 (Walker, 1988: 4,6). In April, 1782, Smith, with a few friends, founded the Society (Allen, 1978: 483). D. E. Allen (pers. comm.) remarks that it was a rather aristocratic body and Oliver might have felt ill at ease, as a surgeon, among the relatively sophisticated membership. It also had a dauntingly high subscription. Oliver did not graduate (MD) (Mrs. J. Currie, pers. comm.).[29] There can be little doubt that he was a member of the " largest and most elusive [medical group]: they were the group who came to study [at Edinburgh University] and left without any form of certification " (Rosner, 1991: 104). Most of them are known of only through their signatures in the Matriculation Albums **(pl. 28)**, since only a handful turn up in any of the surviving letters and diaries of the period (Rosner, 1991: 104; Lane, 1985: 74). Oliver was one of those " who [wished] to perfect themselves in the knowledge of the practice of physic and surgery, after having served a regular apprenticeship with a surgeon or apothecary " (Rosner, 1991: 108). He would return home " with certificates of attendance at lectures, often large and impressive documents which he could hang on his wall if he so chose " (Loudon, 1986: 35; Rosner, 1991: 45).

It is worth just considering if Oliver was a failed MD as it might tell us something about his abilities. Prospective MD's were required to conform to regulations prescribing a set course of study, to submit a Latin thesis and submit themselves to

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[28] The original lists are at the Scottish Record Office. Copies are held by the Library, Royal Botanic Garden, Edinburgh, under the heading John Hope's " Botany Class: Teaching and lectures. " Refs: 1780: GD/253/144/8/13, 1781: /25, 1782: /10 and 1783:/7. The lists for 1778: /14, 1779: /30, 1784: /9 and 1785: /4 have also been checked.

[29] I am not clear from Rosner (1991: 141-144) if Oliver was eligible for the diploma of the Royal College of Surgeons, Edinburgh, not having been a RCS, E apprentice. This diploma was certainly

oral and written examinations for graduation (Rosner, 1991: 62). From 1777 no student was admitted as a candidate for the MD unless he had attended courses in "Anatomy and Surgery, Chemistry, Botany, Materia Medica and Pharmacy, Medical and Practice, and had attended the Clinical Lectures in the Royal Infirmary " (Rosner, 1991: 63). We know that Oliver studied anatomy and surgery, and chemistry in his first session. Was he a prospective MD? In his second session he only studied anatomy and surgery at the university. Therefore, he had either " failed " session one, or it had never been his intention to graduate MD. I am of the opinion that the latter was indeed the case and that Oliver attended to " perfect [himself] in the knowledge of the practice of physic and surgery, after having served a regular apprenticeship to a surgeon or apothecary ", that is, the prospective surgeon-apothecaries (Rosner, 1991: 108). At Middleton-in-Teesdale Oliver was a member of the yeomanry rather than the gentlemen class (see below) which bears this out. Edinburgh prospective MD's (" medical students ") were gentlemen: those attending Edinburgh who were apprenticed to surgeons were not (Rosner, 1991: 12).

For students to be able to " walk the wards " of the Royal Infirmary in Edinburgh, they had to purchase tickets, which they did so separately from those for courses at the University and for the course in clinical lectures at the Infirmary. The cost of an ordinary ticket was two guineas. This allowed the medical student and surgical apprentice to have " access to the wards for a period of three months to hear the lectures and to follow attending physicians on their prescribed rounds. " A "perpetual" ticket, costing five guineas to surgical apprentices, provided entrance to the infirmary for a whole year (Risse, 1986: 38). It was not necessary to sign the matriculation albums for these tickets. There is, therefore, no way of knowing which

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being awarded during Oliver's tenure at Edinburgh University. In any event, Oliver was not a diplomate of the College (Miss A. M. Stevenson, pers. comm.).

students purchased tickets and visited the Infirmary on their own to " walk the wards " (Rosner, 1991: 54, 112-113). Did Oliver "walk the wards" at the Infirmary? As this was increasingly becoming the recognised pattern of medical training for apprentices like Oliver (Loudon, 1986: 35, 53), and Oliver spent three sessions at Edinburgh, I am in no doubt that he did indeed " walk the wards " at the Royal Infirmary, Edinburgh. Further, the University and the Infirmary in Edinburgh had an outstanding reputation for medical training (Rosner, 1991: 62) of which Oliver would surely want to take full advantage. " Edinburgh students did not randomly ' walk the wards ', as they did in London hospitals, frequently changing institutions and instructors while getting lost among the large retinues that followed attending practitioners " (Risse, 1986: 241). He would have " walked the wards " under one of the two physicians- in-ordinary. One of these was John Hope, who simultaneously held the professorship of botany at the University of Edinburgh. In his capacity as a physician-in-ordinary, Hope would make " daily rounds at noon and again in the evening, and medical students were encouraged to follow [him] on their journeys through the various wards " (Risse, 1986: 62-63). Thus, Oliver would be in regular contact with Hope through three sessions at Edinburgh. A. G. Morton (pers. comm.) remarks:

> ...As regards William Oliver's training as a field botanist there is every reason to suppose that it would be very adequate, even though informal. Clearly he would get to know Dr. Hope during clinical training, and although Hope was a reserved man he quickly took a very friendly, almost fatherly interest in young men who showed an interest in botany and especially in the native flora. There was a whole group of men, including Dr. John Walker, Regius Professor of Natural History, and very many of his medical students, who would undoubtedly have welcomed Oliver and provided him with encouragement and instruction. He could hardly have found a better place to learn field botany...

In 1763 Hope laid out the new botanic garden in Leith Walk in Edinburgh according to the " Sexual System " of Linnaeus and used Linnaean binomial names for the plants (Morton, 1986: 11, 13). Catalogues for the garden appeared in 1775 and 1778. They were anonymous, but it is fair to assume that they were published with Hope's authority (Morton, 1986: 43). The garden contained a greenhouse and

hothouses etc. (Morton, 1986: 11). Thus, although Oliver was only in Edinburgh from the end of October to the beginning of May, there would certainly be interesting plants to see in the garden. Apparently, the Infirmary had its own " physic garden " (Risse, 1986: 72, 393).

If Oliver purchased a " perpetual " ticket for admission to the infirmary for the whole of say 1781 and/or 1782, rather than returning to Hawick to help his master, he would, of course, have had much more opportunity for contact with Hope, and his garden. This could also explain why Oliver did not attend Hope's botany classes, having paid for the year at the Infirmary. However, it may simply have been that he could not afford to do botany. Having served his pupillage before going to Edinburgh, Oliver's time between sessions at Edinburgh University would have been much more productively employed " walking the wards ", provided it could be afforded.

I now want to consider Oliver specifically as a surgeon in Middleton-in-Teesdale. The *Medical Register* for 1779 (p. 80), 1780 (p. 90) and 1783 (p. 65) (Simmons, 1779, 1780 and 1783) (the only years it was published [30]) includes just one entry for Middleton-in-Teesdale in County Durham, namely, Henry Henderson (1752-alive 1795 (Wallis and Wallis, 1988: 281)), Surgeon **Apothecary**. Lane (1984: 371) concludes that it is " undeniably reassuring " that so much of the detail in the 1783 edition of the *Medical Register*, " when checked against other contemporary material that has randomly survived, is found to be reliable and useful for modern research. " [31] Henderson served his apprenticeship in nearby Staindrop (Wallis and Wallis, 1988: 105). He is not shown in the Land Tax Return for Middleton-in-Teesdale for 1783, the only earlier extant one being for 1759, when Henderson would have been only seven years old. He moved on to Bishop Auckland (Wallis and Wallis, 1988: 281).

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[30] It did not sell as well as expected and was, therefore, discontinued (Good, 1796: 210-211).

The important point here is that Henderson was the only medical practitioner in Middleton-in-Teesdale, that is, the population of this parish could only support one such business.[32] Loudon (1985: 7) makes the point that: " If there was no competition at all-if the practitioner was alone in his district-he was forced to practise all branches of medicine whether he was entitled physician, surgeon, or apothecary. " That Oliver was able to do the work of a physician and a surgeon is no doubt indicative of his training under a physician and his three years at Edinburgh. It must also say something about his self confidence, performing all these duties in such a remote place as Middleton-in-Teesdale. In these circumstances, Oliver would also be the man midwife, for which we know he was trained. Why did Oliver leave Hawick? Because of competition. William Scott would still have been practising, and McCracken (1949: 415) shows that in the periods *circa* 1750-1770 and *circa* 1795 there were three medical practitioners practising in Hawick. Why did he move to England? Loudon (1985: 26) remarks that: " ...the fees earned by country surgeons in Scotland were very much lower than those in England. In fact, the poverty of country practice in Scotland was proverbial in the nineteenth century as well as the eighteenth. " He may also have been part of the general economic migration of the Oliver Surname (Oliver, 1982: 55-65).

The *Newcastle Chronicle* and the *Newcastle Courant* newspapers covered an area which took in both Hawick and Middleton-in-Teesdale.[33] I believe Henderson simply advertised his business for sale in one or both of these newspapers and, with the help of his family, Oliver purchased it. Being so remote, perhaps it was inexpensive? It will be noted that Henderson was only thirty-one years of age when he left Middleton-in-Teesdale for Bishop Auckland, a larger and much less isolated place. Oliver is shown

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[31] Rosner (1991: 242 Note 16) is wrong in stating that the county of Roxburghshire " is not even mentioned in the *Medical Register* [for 1779]. " A listing appears on p. 196.

in the 1783 Land Tax Return for Middleton-in-Teesdale **(pl. 29)** (ref: see note 2/15). He is shown as " Dr. Oliver ", a tenant. " Dr. " was a courtesy title in such cases as Oliver's (D. E. Allen, pers. comm.).

What would Oliver's life have been like as a surgeon in Middleton-in-Teesdale and the surrounding countryside that included Upper Teesdale? And how would this way of life have lent itself to botany? Loudon (1985: 10) comments: " Surgery in the pre-anaesthetic era is usually pictured as a series of grim and dreadful operations of unimaginable pain. As Porter recently described it: ' ...in the age of agony before antiseptics and anaesthetics, surgery was limited to simple, quick or desperate operations such as amputations, removing bladder stones and setting fractures '." The most common category and the one in which the surgeon was able to offer most effective treatment was accidents and injuries (Loudon, 1985: 13). Oliver's clients would be primarily lead miners/smallholders and farmers. Accidents in such situations cannot have been rare. The lead mines and farms in his practice were scattered through the upper dale. " ...Oliver would have to go here there and everywhere in the Middleton area if he was to earn a professional living... " (D. E. Allen, pers. comm.). Loudon (1986: 117) quotes William Carr in the 1780's: " ' The business of a country surgeon will greatly depend on his riding about much; if he does that he will be fully employed; if he stays i' th' house he'll not get employed in the country.' " Oliver can be pictured: " making his rounds on horseback with two large saddlebags containing ointments, lotions, bandages, and plasters, as well as instruments..." (Loudon, 1985: 12) and a container for plants. Lettsom, in his manuscript *Recollections*, tells us that Settle, in the Yorkshire Dales, where his master practised as a surgeon and apothecary, was: " ...an obscure part of the Country..." (p. 14), a description which

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[32] Population in 1801: 1537 (Raistrick and Jennings, 1983: 324).
[33] Both newspapers commenced prior to 1783 (Gibson, 1987: 41).

Plate 29 (two sheets). The Middleton-in-Teesdale Land Tax Return for 1783.
Durham County Record Office.

County of Durham, Darlington Ward, South West Division

An Assessment made for the Constablery of Middleton in Teesdale in the said Ward; in pursuance of an Act of Parliament passed in the Twenty third Year of his Majesty's Reign, For granting an Aid to his Majesty by a Land Tax, to be raised in Great Britain, For the Service of the Year One Thousand Seven Hundred and Eighty Three.

Names of Proprietors	Names of Occupiers	Sums assessed L	s	d
	Mark Sherlock	–	2	9½
	Wm Walton	–	11	–
Lord Darlington	Thomas March	–	6	8
	Mary Brunskill	–	4	–
	Richd Walton & Wm Parkin	–	2	2
	Thos Bainbridge	–	4	–
	Thos Collinson	–	2	8
Revd Mr Lascelles	Jn Lowes, Ra March &c	10	10	–
	Ann Tarn & Wm Collin			
	Wm Wilson, Jn Robinson,			
	Geo Richardson, Rt Stagg	1	5	11
J W Elliot	John Bell, Jno Brunskill			
	and Wm Walton			
	Himsely, Geo Richardson			
William Wilson	Wm Parkin & Jn Walton	–	7	–
	Himsely	–	2	2
Thos Marshall	Thos Elliot		5	2
	Francis Cuddy	–	5	10
	Wm Tarn	–	1	8
	Richard Bell	–	3	6
	Mark Sherlock	–	1	8
	Wm Twinbanks			
	Jos: Parmely	–	1	2
	Geo: Richardson	–	1	2
Jno Briggs	Thomas Robinson	–	1	–
	Robt Grieve	–	2	–
	Mary Robinson	–	2	–
	John Robson	–	2	–
	James Hindley	–	7	–
A R Bowes Esqr	Wm Morton	–	5	4
	John Finkler	–	5	–
	Thos Dent	–	5	4
	Jn Walton	–	2	6
Mark Sherlock	Ric Sedgewick	–	1	11
	Thos Redpath	–	2	–
	Jn Brown	–	2	6
Timothy Hutchinson Esq & Jn Dent	John Todd	–	5	–
Luke Richardson	Himsely	–	1	8
Mary Richardson	Jn Walton	–	–	6
Thos Wilson	Jacob Bradwell	–	1	8
Revd Jn Simpson	Robt Bradley	–	1	3
		16	19	10½

Names of Proprietors	Names of Occupiers	Sums assessed L	s	d
Robt Elliot	Jn Robinson & Jn Raw	–	4	6
Tho Bainbridge	Jos Dent	–	–	4
Revd Robt Johnson	Jos Walton	–	7	–
Chas Bainbridge	Jno Pinkney	–	–	6
Ann Tarn	Matw Walton	–	–	4
Jn Jackson & Lee	Mary Robinson	–	–	7
	Thos Johnson	–	–	4½
Jonathan Nixon	Jonathan Johnson	–	–	4
Elizabeth Horn	Hirsely	–	–	6
Thos Horn	John Allison	–	2	–
Geo: Bradwell	Himsely & Jno Bainbridge	–	–	5
John Tweard	Jn Tarn	–	–	5
John Lockley	Himsely	–	–	6
William Walton	Himsely	–	1	1
Henry Shield	Miles Walton	–	1	11
Miles Walton	Himsely	–	–	4
Jos: Richardson	Jno: Dowson	–	–	4
John Armstrong	Himsely	–	–	4
Richard Robinson	Thos Hindmarsh	–	–	8
Ann Wilson	Hirsely & Jas Bradwell	–	–	8
Revd Jn Simpson Rutter	Joseph Forster	–	1	–
John Lowes	Joseph Forster		1	–
Jona: Wells	Himsely	–	–	6
Anthe: Burslin	Wm Thompson	–	1	–
	Himsely	–	1	8
Jonathan Rutter	Jos: Dowson	–	1	–
	Geo. Buzzy	–	1	–
Ann Tarn	Thomas Shield & Wm Walton	–	1	–
Thomas Bainbridge	Nanny Bills & Jn Bainbridge	–	–	5½
Anthe: Hanby	John Brown	–	2	8
Anthe. Hanby	Thomas Tarn	–	6	–
John Lowes	Himsely	–	4	6½
Richd Robinson & R Robinson	John Lowes	–	1	9
John Finkler	John Bainbridge	–	1	8
Richd Robinson	John Bainbridge	–	2	4
John Pinkney	Himsely	–	1	4
Jn Rain	Himsely	–	1	8
Tho: Allison	Geo Richd Richardson	–	1	8
Chris Allerton	Jn Bradwell	–	–	8
Wm Twinbanks	Wm Richardson	–	1	8
Anthe Hall	Thos Hall	–	1	8

Names of Proprietors	Names of Occupiers	£	s	d		
Paul Lands	Richd Bell	—	3	—		
Thos Hornby	Himself	—	1	4	Signed this Twenty third Day of	
Wm Garnett	Himself	—	—	4		
Thos Waller	Thos Bell & Wm Bainbridge	—	—	6	By His,	
	Wm Arnold & R Bradwell				Totor Sinclair	
Rd Gibson	Himself & Son	—	3	11		
Wm Tinkler	Rac Coulthard & Wm Coulthard				Chair	Wm Richardson
	Jno Skinner & Wm Walton		13	8		
	Dr Oliver & M Thompson					
Abm Tinkler	Rd & M Farmer & J Farmer		6	—		
	Gibson Collinson					
Wm Fisher	Thomas Lowes	—	—	11		
Phile Allison	Himself & Wm Foster	—	—	4		
Wm Tarn	Himself & Wm Hunter	—	—	4		
Eliz Hobson & Thos Hobson	Themselves & Jn Robinson	—	7	—	11 Sept 1783 Allowed by Us	
	Rebecca Dover					
M Collins	Thomas Bedale	—	4	—		Wm Tate
Anthos Todd	Himself	—	6	—		
Jona Stephenson	Himself	—	2	8		Rd Wray
Jonathan Allison	Richard Raine	—	2	8		
Thomas Allison	Thos Collinson	—	1	8		
John Marshall	Himself	—	2	5		
M Jer: Hutchinson	Ann Tarn	—	3	8		Wm Cowin
John Coatsworth	Himself, B Binks & R Lee	—	1	6		
	Thomas Tinkler	—	2	—		
	John Pinkney	—	6	—		Middleton
	Jo: Walton	—	1	6		
	Jn Tarn	—	1	6		
	Eliz Horn	—	1	6		
Wm Bainbrigg	Thos Vipond	—	2	—		
	Thos March	—	1	—		
	Jos: Parmely	—	1	4		
	Mary Bradwell	—	3	4		
	Thos Redfearn	—	1	3		
	Thos Horn	—	—	12		
	Jos: Dent	—	—	9		
Arthur Lee	Wm Swainbank	—	4	8		
Anthony Hutton & Jos Blenkinsop	Thomas Nippard		1	1		
Arthur Bainbridge	Himself & Fra: Shield	—	1	8		
Thomas Redfearn	John Lowes & Gesling	—	—	4		
	Charles Richardson	—	3	—		
Lord Darlington	Richd Ritter	—	—	2		
	Mary Thompson	—	—	4		
Galley Whitfield & Thompson	John Robinson	—	4	—		
Anthony Hornby	John Robinson	—	2	4		
Robt Elliot	Wm Watson	—	3	4		
Jack Shields	Himself	—	1	2		
		2	2	11		

certainly could have equally applied to Middleton-in-Teesdale. His master's practice extended: " ...at least ten miles on every quarter from his residence..." (p. 16) and his master, Abraham Sutcliff, was frequently exposed: "...to all the changes and inclemency of weather, passing over mountains bleak, and almost trackless, by night as well as day " (p. 17). I think Oliver's practice would have had much in common with Sutcliff's, although Sutcliff would not have had to deal with as many lead miners. Something has already been said about the winters in Upper Teesdale. One can only sympathise with what Oliver must have had to put up with in doing his daily rounds and night calls.

The picture that emerges is that Oliver, as a surgeon, must have got to know Upper Teesdale and its inhabitants quickly and intimately. He may have done some botanising on his rounds, like Dr. F. A. Lees after him (Seaward, in Lees, 1888, reprint 1978: (v)), but this would clearly be limited by both pressure of work and the weather. However, his early contact with the natives, especially the farmers and the lead miners, would, I'm sure, bring him early knowledge of curious plants, once the word got round about his interest in botany.[34] The obvious example of this is the spring gentian, *Gentiana verna*, which has become the star of Upper Teesdale. The inhabitants of Teesdale Forest knew " ...it well by the name of Spring Violet, as it copiously enamels that country at a time when no other flower enlivens the dreary scene " (Smith in Sowerby, 1798: **VII** *t.* 493). Bellamy in Bellamy and Mackie (1981: 125) remarks:

> ...The [Upper Teesdale] plants, especially the more showy ones, must have been well known to the locals, at least by sight if not by name, and at one time there was almost a tradition in the houses as to who could put on the best show of Gentians. The practice was to cover a ball of clay or moss with Gentian flowers and set it on a crock in the window for all to see...

Oliver was to remain at Middleton-in-Teesdale until his death in 1816. Lane (1984: 364), in a study of the *Medical Register* for 1783, states that it is apparent "that the

majority of medical practitioners remained in the same community where they had built up good will and had established premises and a clientele. " However, Oliver must have been at the very least reasonably happy and successful in Middleton-in-Teesdale, remaining there as he did for some thirty-three years.

My concern with Oliver's material as opposed to personal success is twofold. Firstly, it is part of his biographical narrative, and secondly, it was a key part of the back cloth to his botanising. One only has to compare Harriman with Oliver in this respect to appreciate its significance. Evidence of *material* success, or otherwise, is inevitably so much easier to find than that of *personal* success in studies like mine. However, that I have had to emphasise this aspect should not be interpreted as meaning that I equate material success with personal happiness.

I now propose to examine Oliver's status in the community of which he was a respected member at Middleton-in-Teesdale. Land Tax Returns are extant for Middleton-in-Teesdale in the period of Oliver's residence there for the years 1783, 1784, 1785, 1788, 1789, 1806 and 1815 (for references see note 2/15). Oliver appears on those for 1783, 1789, 1806 (twice) and 1815 (twice). Why doesn't he appear on those for 1784, 1785 and 1788? My explanation is as follows. Up to 1788 inclusive, Arthur Bainbridge paid tax of one shilling and eight pence per year. In 1789 he paid the lower figure of one shilling and two pence, the balance of six pence being paid by Oliver. I interpret this as meaning that in the period from the date that the 1788 Return was made up, namely May, 1788, to the date the 1789 Return was made up (this Return is undated), Oliver became a freeholder by purchasing part of Arthur Bainbridge's property. My scenario is thus as follows. Oliver arrived in Middleton-in-

[34] One wonders if he was ever paid in kind, that is, with plants...?

Teesdale in 1783 and lived in temporary digs [35] until he found suitable permanent accommodation. He quickly moved in with Arthur Bainbridge (and " Fra: Shield " per the 1789 Return) as a lodger, being a bachelor. He paid his board to Bainbridge, hence his not being on the Returns for 1784, 1785 and 1788. The reason for Binks not being on the Returns could similarly be that he was a lodger, again being a bachelor.[36]

It is interesting to note that the first entry for Oliver on the Manor court rolls for Middleton-in-Teesdale is for the annual court of 25 October, 1792.[37] Under "Freeholders in Middleton " it reads: " W^{m}. Oliver late Arth. Bainbridges. Ess. " [38]

Another point of interest is that the court met under William Hutchinson (*q.v.*) of Barnard Castle in his capacity as " Deputy of Geo Allan Esq Steward ". In each of the years 1806 and 1815 Oliver paid one shilling and four pence in Land Tax, presumably on the property he purchased from Bainbridge, together with five shillings and one penny Land Tax as a tenant of The Trustees of Anthony Todd, which will be explained later.

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[35] From the 1783 Land Tax Return he could well have shared a lodging house with lead miners. What an excellent way to learn about Upper Teesdale.

[36] The 1783 Land Tax Return for Middleton-in-Teesdale shows a B. Binks, a tenant of John Coatsworth. The Account Book of the trustees of Anthony Todd deceased (see below) shows that on 11 February, 1804, Nook Farm was let to Thomas Ainsley and Reuben Binks. The 1806 Return for Middleton-in-Teesdale shows Barbara Binks as a tenant of John Coatsworth Jnr., clearly the " B. Binks" in the 1783 Return. It also shows Reuben Binks as a tenant of Thomas Ainsley. The 1815 Return for Middleton-in-Teesdale shows Thomas Binks as a proprietor. I assume that this is the same Thomas Binks (of Stoneykeld, Yorkshire, gentleman!) as that referred to by J. F. Hargrave in an unpublished and undated typescript entitled *Thomas Wheldon and the Hanby Holmes Practice* (an introduction to the Hanby Holmes papers at DCRO) who describes him as " a violent drunkard and spend thrift, much addicted to the acquaintance of gaolers and bailiffs, whose downfall may be attributed to his character and to two long suits in the Court of Chancery in equal measure..." I must emphasise that I am not aware of any connection between Thomas and John Binks!
These are the only other Binks surnames that I have come across in Middleton-in-Teesdale at this time. I do not know if Barbara and/or Reuben were related to John Binks. As Barbara was a tenant she would hardly have been likely to have taken in John Binks as a lodger, unless, perhaps, she was his mother (a point I intend to follow up), or even his sister. Reuben appears to have arrived on the scene rather late. J. F. Hargrave (pers. comm.) states: " In the second half of the 18th century there were several Binks baptisms at Middleton-in-Teesdale,.."

[37] Ref. DCRO D/Bo/A 368. The local jurors present cases to the court for the lord's consideration and wrongdoers are duly punished. Any kind of village problem can come to court: scouring ditches, stray cattle on corn fields, witchcraft, assault, theft, disputes about boundary stones, rents, the lord's corn-mill (DCRO).

[38] Essoined refers to those who sent appropriate excuses (Mrs. J. L. Drury, pers. comm.).

Oliver is one of the signatories to the 1792 Middleton-in-Teesdale glebe terrier.[39] The other signatories are the Rector, the curate, a[of] the schoolmaster, the church wardens for Middleton, Newbiggin and Forest, Thomas March, William Hobson and John Robinson. Clearly, Oliver is jointly signing to the effect that the glebe terrier is a true and accurate record of the glebe possessions of the parish of Middleton-in-Teesdale. I, therefore, conclude that, in common with March, Hobson and Robinson, Oliver has signed as a respected trustee of the Middleton-in-Teesdale parish church. Thus, by 1792, or possibly earlier, Oliver had acquired some status in the community.

I have already referred to the visit of The Hon. John Byng to Middleton-in-Teesdale on 13 June, 1792. That he met Oliver I will now demonstrate. Andrews (1936: 72) states:

> ...I [Byng], soon, grew anxious to be going; more than G. [Garwood-his servant] was, who had made the acquaintance with the apothecary of the place [Middleton-in-Teesdale]; (mark the distance from London, and how *genteel* society is sought for) with whom, in the kitchen was a long discourse held about this aforementioned water-fall [High Force]; which the apothecary told me he had measured, and that from the top of the upper fall it was 63 ft,-from the top of the lower fall 56 ft. He, the apothecary seem'd sorry to part with such good company; and would have relished our passing the night here...

Byng's bill at "...Mr Sherlocks, a kind of public house without a sign..." (Andrews, 1936: 69) is reproduced by Andrews (1936: 72) (**pl. 30**). Included in the bill [40] is the following item: " Servants Eating and Ale (with Apothecary) one shilling and two pence ". It will be noted that Byng refers to " *the* [my italics] apothecary ". We know that there was only one practitioner in Middleton-in-Teesdale, and that Oliver studied " mensuration" at school. Further, one would expect such a member of London society to refer to Oliver as an apothecary, not a surgeon or a " Dr. " Richard Garland, in the second edition of his anonymous "A Tour in Teesdale ", published in 1813, repeats the heights of 63 feet and 56 feet referred to above in connection with

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[39] Durham University Library Archives and Special Collections. Ref: Durham Diocesan Records: Middleton-in-Teesdale glebe terrier 1792. A glebe terrier is a list or inventory of the property which makes up the glebe possessions of a parish (Miss M. McCollum, pers. comm.).

Plate 30. The Hon. John Byng's bill for his two stops at the " Bridge End " public house, Middleton-in-Teesdale, on 13 June, 1792. *The Torrington Diaries*...C. B. Andrews, 1936.

SHERLOCK.

MIDDLETON. BRIDGE END.

Coffee and Tea - - - - - -	—	—
Dinner - - - - - - -	1	0
Supper - - - - - - -	—	—
Wine - - - - - - -	—	—
Negus - - - - - - -	—	—
Rum and Brandy - - - - - -	1	0
Punch - - - - - - -	—	—
Ale, Beer and Porter - - - - -	0	4
Fire, Pipes & Tobacco - - - - -	—	—
Horses hay & Corn - - - - -	1	4
Chaise and Horse Hire - - - - -	—	—
Cyder, Lemons & Sugar - - - -	—	—
Servants Eating and Ale (with Apothecary)	1	2
	4	10

High Force on page 67. On page 95 he states: " THE following LIST of rare Alpine Plants to be found in and near Teesdale , was obligingly communicated by MR. OLIVER, Surgeon, at Middleton; a Gentleman to whom the Writer, with many other wanderers in his vicinity, is indebted for much personal civility and local information."

Thus, I am in no doubt that Byng's apothecary was, indeed, Oliver. On page 77 Garland states that the total length of Cauldron Snout, at the foot of The Weel, is 596 yards. There can be little doubt that Oliver had measured this also. The meeting with Byng and Garland is particularly revealing. Oliver's behaviour is consistent with what one would expect of someone with the background I have described.

On 21 December, 1794, Oliver married Mary Hodgshon (1768?-1808),[41] daughter of Ralph Hodgshon **Esq**. (Hutchinson, 1794: 223), of Alwent in the parish of Gainford,[42] some fifteen miles as the crow flies down the dale from Middleton-in-Teesdale.[43] The Land Tax Return for 1789 for Gainford [44] shows that Oliver's future father-in-law paid ten pounds twelve shillings and ten pence ha'penny on three properties, as compared with Oliver who paid six pence in total! William and Mary had five children, four sons, Robert Hodgshon, George, William and Ralph, and one daughter, Jean. Ralph died in infancy and Jean died aged twenty. The three remaining sons all became surgeons like their father. No doubt one, or possibly more, was apprenticed to his father. The eldest son, Robert Hodgshon Oliver, died aged twenty-

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[40] The copy of the bill is headed: " SHERLOCK. MIDDLETON. BRIDGE END. " Apparently, the "kind of a public house " was called " Bridge End ".

[41] Dates from Oliver's headstone which reads regarding Mary: " ...Also Mary his wife who died Mar. 29th. 1808, Aged 40 years..."

[42] DCRO. Gainford parish marriage register ref. EP/Gai 4.

[43] Richard Hodgshon, surgeon of Darlington, is named as one of the executors in the will of Robert Hodgshon Oliver who died in 1817. He would be Mary's brother (Wallis and Wallis, 1988: 293 show him (as Hodgshom (sic)) practicing in 1788). Did William meet Mary through Richard? Longstaffe (1854: 317) states that on 13 April, 1808, " The foundation of the present Town's [Darlington] Hall, in the Market Place, was laid by George Allan, esq., of Blackwell Grange; George Lewis Hollingsworth, esq., banker; Richard Hodgson, esq., surgeon; and Mr. William Kitching, ironfounder; a great number of gentlemen being assembled..."

[44] DCRO. Ref. Q/D/L 61.

one in the year after his father died. Oliver's wife, Mary, died in 1808 after only fourteen years of marriage.

The events of the years 1794 onwards, with their key botanical consequences, will be dealt with later.

The will of Anthony Todd of Auxside, Middleton-in-Teesdale, dated 1 March, 1801, appointed Oliver a joint trustee (with William Holden and Ralph March) of his eldest son, Anthony Todd, a minor. Probate was granted on 19 June, 1801.[45] I have only seen the draft release regarding Anthony reaching the age of majority. It is dated 25 July, 1816.[46] Thus, Oliver had agreed to take joint legal responsibility for the estate of a minor: [47] this in addition to his own (then) three children. There is in the personal possession of Claude Watson of Auxside, a descendant of Anthony Todd, an accounts book headed " Sundry Payments by William Oliver, William Holden, & Ralph March, Trustees appointed by the Will of the late Anthony Todd..." [48] The entries in this book reveal that Oliver rented Hood Gate House and Farm, together with Bottom Closes pastures, all in Middleton-in-Teesdale, from the trustees of Anthony Todd deceased. As has been noted, Oliver was one of these trustees. The letting commenced in 1801 or 1802, that is, shortly after Todd Snr.'s death. Oliver paid rent of twenty-four pounds and three shillings a year. In 1805 he also rented from the same landlord part of Gatehead pasture at five pounds a year. It is revealing to compare these figures with Harriman's salary of thirty pounds a year. The 1815 Land Tax Return shows that Oliver was still liable for Land Tax in respect of his occupation of property owned by the trustees of Anthony Todd deceased. From the date of the draft release, Anthony Todd was apparently twenty-one sometime shortly after July, 1816.

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[45] The Borthwick Institute of Historical Research, The University of York. Ref. Prerogative Court of York, probate records June 1801.
[46] DCRO ref: D/HH/3/1/17/31.
[47] No doubt the trustees also supported Anthony's mother in any way they could with regard to his moral education.

Oliver died on 11 October, 1816, having "...been long ill..." [49] I, therefore, conclude that Oliver rented these properties from 1801 or early 1802 until his death. The extant Land Tax Returns show that throughout this period Oliver still had his freehold property. In both 1806 and 1815 Oliver was due to pay Land Tax of five shillings and one penny on the farm properties and one shilling and four pence on his freehold property. Given the size of his family, I am in little doubt that they lived at Hood Gate House. The name of the property suggests that it was at or near a major point of entry to the village. The debits in the accounts book indicate that Hood Gate Farm was a working farm during Oliver's tenancy. Hood Gate House has been so modified over the years that the original property is now indiscernible (C. Watson, pers. comm.). However, the area where it is situated is now called Hudegate.[50] Lane (1984: 354) remarks that surgeon-apothecaries frequently had " surgeries sited conveniently for the major roads [and tracks] of the area, enabling the practitioner to attend patients many miles away... "

Some of the debits in the accounts are of interest. On 31 March, 1801, there is a charge of eight shillings and five pence " By Expenses with Mr. Garland at Barnard Castle on business By a journey ". We can, therefore, safely conclude that Todd died in March, 1801, and that the trustees, including Oliver, attended Garland in this connection. " Mr. Garland ", a solicitor, was Richard Garland, the anonymous author of " A Tour in Teesdale " which appeared in parts (in the form of letters to the editor) in the *York Herald* newspaper in 1802 (and before?).[51] On 2 October, 1802: " By W.

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[48] I am grateful to Claude Watson for allowing me to study this volume.
[49] Letter from Harriman to Sowerby dated 29 October, 1816. JS ref: 9/A25/f.101.
[50] Ordnance Survey Middleton-in-Teesdale sheet NY 82/92 1: 25000.
[51] There are copies of the first (1803) and second (1813) editions of " A Tour in Teesdale " in the Durham County Library, City of Durham. The library catalogue entry for the second edition reads: "This copy includes newspaper clippings from the York Herald, including an original issue of the Tour in Teesdale series to this paper sent in by Richard Garland under the pseudonym ' S '." There are two clippings pasted into this copy. One is annotated: " York Herald 18 September 1802 ". The other (complete) cutting is also clearly from the same newspaper and is indeed written over the

Hutchinson Attorney B[d]. Castle 13/6[d] " and on 17 April, 1805: " Wm. Hutchinson Esq. B[ec]. [Barnard Castle] ". William Hutchinson was the author of *The history and antiquities of the County Palatine of Durham* in three volumes (1785, 1787 and 1794). He was also secretary of the Society for promoting the Study of General & Natural History & Antiquities at Darlington. The role of William Hutchinson will be explained later.

" An Act for inclosing Lands in the Parish of *Middleton* in *Teesdale* in the County of *Durham* " was made on 25 March, 1805.[52] The following extract is of interest:

> ..:And whereas the said Earl of *Darlington*, the Right Honourable *John Bowes* Earl of *Strathmore*, *William Hutchinson* Esquire [of Eggleston], *Joseph Dawson*, ***John Robinson*** [my emphasis], *John Addison*, *William Oliver*, and several other Persons are respectively Owners and Proprietors of Messuages, Lands, and Tenements within the said Manors and Townships of *Middleton* in *Teesdale* and *Eggleston*, which are all of Freehold Tenure, and in respect thereof are or claim to be entitled to Right of Common in and upon the said Moors, Commons and Tracts of Waste Land, or some or one of them:..

That Oliver is specifically mentioned in this Act clearly indicates that he had become one of the most prosperous members of his community. He was paying a total of six shillings and five pence in Land Tax in 1806. I would put him on a par with the yeoman, Anthony Todd deceased, in Middleton-in-Teesdale. Oliver himself did not become a "gentleman".

We hear no more of Oliver until the visits of James Backhouse Snr. in 1810 and 1811, which I have already discussed. The next we know of him is by his will dated 14 September, 1816.[53] He died on 11 October, 1816, and is buried in the graveyard of the Middleton-in-Teesdale parish church, St. Mary's in Middleton-in-Teesdale. The headstone reads (**pl. 31**):

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pseudonym "S". The title page of another copy of the second edition of this book, in the library of the University of Durham, has been annotated: " By Richard Garland Esq. formerly of Barnard Castle " That Oliver and the other trustees saw Garland on 31 March, 1801, and Hutchinson of Barnard Castle on 2 October, 1802, and subsequently, together with the above, leads me to the conclusion that Garland left Barnard Castle for the York area in 1801 or 1802. It is, therefore, very likely that Garland met Oliver personally prior to this period.

[52] DCRO ref. Local and Personal Acts 45. GEO. III CAP. 13.

[53] University of Durham, Department of Palaeography and Diplomatic, ref. Durham Probate Records, William Oliver, 1817.

Plate 31. William Oliver's headstone in the churchyard of St. Mary's Parish Church, Middleton-in-Teesdale.

> Sacred to the Memory of William Oliver, Surgeon in Middleton who departed this Life October 11th. 1816, Aged 56 years...

Death notices appeared in the *Newcastle Chronicle* and the *Newcastle Courant*. That in the *Chronicle* of 19 October, 1816, is as follows:

> Friday se'nnight [week], at Middleton in Teesdale, in the County of Durham, aged 56, Mr Wm. Oliver, surgeon, much and **deservedly** [my emphasis] lamented.

On 29 October, 1816, Harriman replied to a letter from Sowerby. They had not been in touch for a long time. It is not clear what prompted Sowerby's letter, unless it was simply an act of friendship. Apparently Harriman had read of Oliver's death in the newspaper. He informed Sowerby thus:

> My Friend Mr. Oliver is no more-he died the 10th. [sic] of this Month, in his 56 Year. He had been long ill. He was very much respected, as he very much **deserved** [my emphasis]...He died in good Circumstances.

There is no evidence that Oliver and Harriman were ever in touch with each other again after Oliver parted company with Harriman in April, 1799.

The probate valuation of Oliver's estate was " under six hundred pounds. " [54] Oliver's will refers to "...All those my freehold premises situated at Middleton aforesaid, consisting of a dwelling house, Garden, Outhouses, and Field, together with my household goods and Furniture, Library, Drugs, and all Fixtures..." It will be remembered that Oliver lived at Hood Gate House, a rented property. He also refers to the houses at Hawick to which reference has already been made, and he makes a bequest to his housekeeper, Elizabeth Tinkler. The only personal possession that he refers to is his " Silver Watch together with the gold Seal and Chain at present attached to it. " That Binks witnessed the will has already been mentioned.

I have referred to the circumstances in which Oliver can be considered to have been part of the Scott medical dynasty. In his turn, Oliver carried on this dynasty.

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[54] This the same as that of James Bolton (1735?-1799) of Halifax (Edmondson, 1995: 47-48). He was a botanist, artist and engraver, and a friend of Edward Robson. I do not know what might have been deductible in arriving at this figure of £600. Oliver was long ill before drawing up his will. I am sure that he would have sorted his affairs out in this period.

Three of his sons became surgeons. Robert, his eldest son, died aged twenty-one in 1817. I have not traced George, his second son, who left Middleton-in-Teesdale sometime after 1834.[55] His third son, William (1800-1851), was a General Practitioner in Middleton-in-Teesdale until his death. He was a MRCS Edinburgh, 1819, a (Teesdale) Union Medical Officer and a member of the Royal Medical Society of Edinburgh.[56] William had four sons, two of whom died in infancy. William Hodgshon (ba. 19 May, 1830), his first surviving son, became a surgeon. He moved to Stockton-on-Tees and became a Lic. Soc. Apoth. Lond. and a Lic. R. Coll. Phys. Edinburgh.[57] His younger brother, and one of Oliver's grandchildren, George (1841-1915) (**pl. 32**), became a Lic. Midwif., L.S.A., M.D. Lond., M.R.C.S., Fellow of the Royal Society of Medicine and F.R.C.P. [58] (Brown, 1955: 324; Taylor, 1916: 29). He published a remarkable paper with Professor Sir Edward Schäfer on the adrenal gland which paved the way for the discovery of adrenalin (Oliver & Schäfer, 1894: 1p.). His second marriage is of particular interest to me in that he married Mary, daughter of W. Ledgard (a well known name in Leeds) of Roundhay, Leeds, where I live (Brown, 1955:324). He " was of a kindly, genial, unselfish disposition " (Taylor, 1916: 29), which is how I like to think of his grandfather. He left property to the value of £46, 979 [59] which, in today's terms, would be worth some two million pounds.[60] He had a family, as did his son (I do not know about his daughter), but I have not yet succeeded in tracing the surviving descendants of William Oliver.

Lane (1985, 58) remarks:

> ...The surgeon-apothecary is one of the eighteenth century's most interesting examples of personal and professional upward social mobility and of steadily enhanced status, not only in

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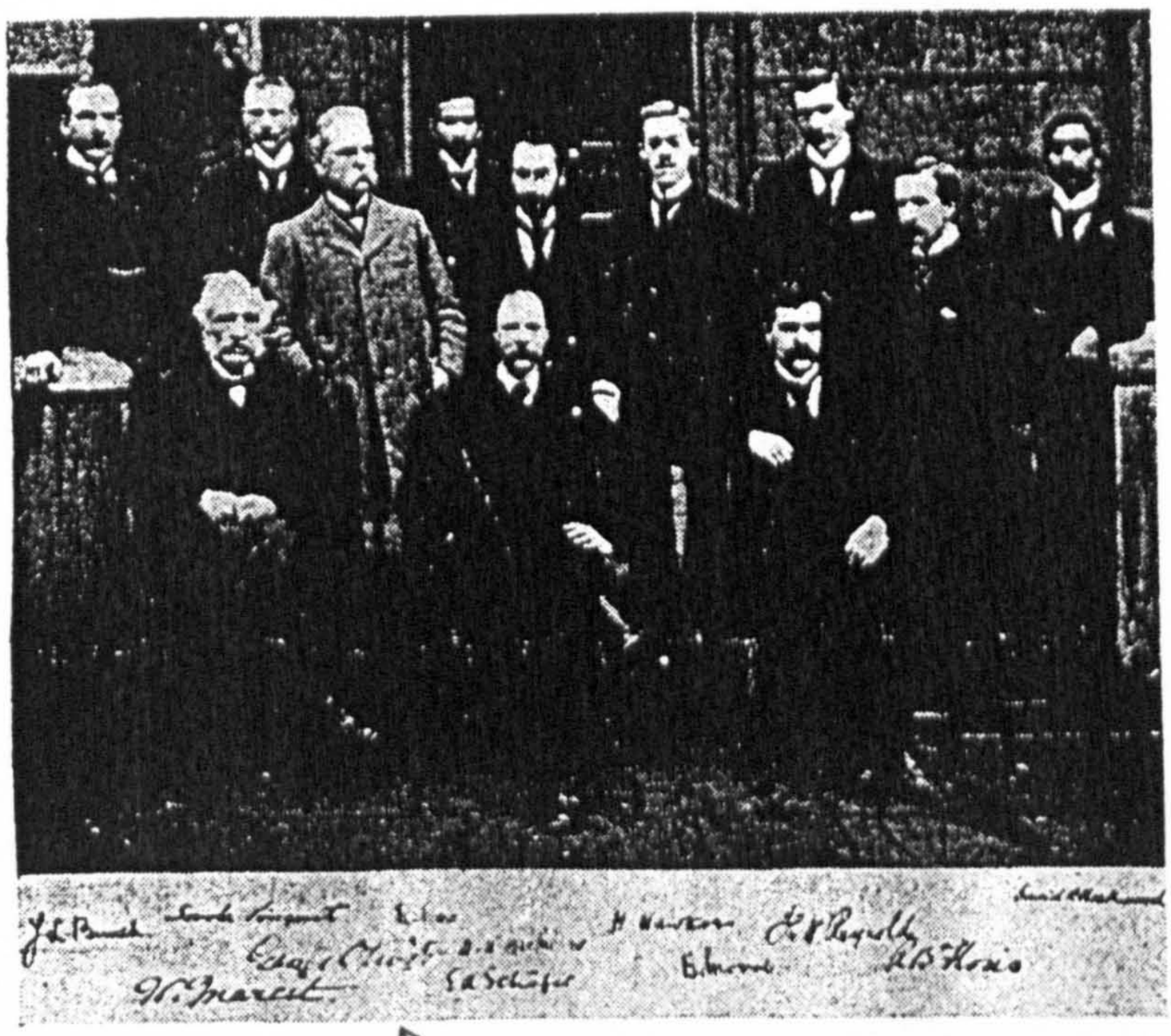
[55] Pigot's Trade Directory for 1834 (p. 164) shows George Oliver (and William Oliver) in business as a surgeon in Middleton-in-Teesdale.
[56] *The London and Provincial Medical Directory*, 1847: 207-208.
[57] *The Medical Register*, 1874: 383.
[58] *The Medical Register*, 1874: 383.
[59] *The British Medical Journal*, 1916, 1: 640.
[60] *Whitaker's Almanack*, 1997 p. 599.

Plate 32. William Oliver's grandson, George (in the grey coat), and his signature. Photograph taken in 1894. *Postgraduate Medical Journal*.



> London, where the " surgeon-princes " had always prospered, but also in the English provinces, where their houses, marriages and affluence were worthy of contemporary comment...

Certainly, Oliver personifies this progression. Success as a practitioner is not only measured in terms of income, about which, in any event, we have no primary details for Oliver. Standing in the community is also a determinant (Lane,1985: 98). I believe that Oliver's was such that there can be little doubt that he was a successful practitioner.

Does my outline biography of Oliver bear out what Backhouse Jnr. said about him in his *Recollections* and in his letter to J. G. Baker? I think not.

CHAPTER 4

REV. JOHN HARRIMAN (1760-1831) CURATE OF EGGLESTON CHAPEL OF EASE TO MIDDLETON-IN-TEESDALE

Unlike Oliver and Binks, Harriman is a recognised figure. He has an entry in the *Dictionary of National Biography* (Watkins, 1890: 433-434), and I have recently written a new entry for him in the *New Dictionary of National Biography* (Horsman, in press). An obituary appeared in the *Annual Register* for 1834 (p. 249). Watkins (1890: 433) states that Harriman was born in Maryport, Cumberland, in 1760,[1] [2] of a family of German extraction named Hermann. He continues: " Two Hermanns, professors of botany, one at Strasbourg the other at Leyden, in the latter of whom may be recognised the precursor of Linnaeus, were probably of the same family." I have no details of Harriman's schooling. However, at the age of seventeen he became a medical student "and applied himself to anatomy, materia medica [*c.f.* Oliver], and clinical study.[3] But dissecting work soon fatigued his delicate constitution. After two years he returned to his classical studies and took holy orders " (Watkins, 1890: 433). The *Annual Register* for 1834 (p. 249) states: "In his 17th year he commenced the study of medicine, with the design of pursuing it as his profession. But abandoning it

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[1] The Cumbria Record Office informs me that they have found no baptism entry for Harriman in either the IGI (the Mormon Index of baptisms and marriages) or in the Crosscanonby parish register for 1760. Crosscanonby was the ancient parish of Maryport. They have also checked the Workington, Crosscanonby and Maryport baptism registers for the years 1759-1761 inclusive. They can find no entries at all for the name Harriman or its variants. They also inform me that The IGI (which is not infallible) does not offer any possible entries either around that period. Perhaps Harriman was not baptised until just after 1761 (or later in life)?

[2] The *Annual Register* for 1834 (p. 249) states that Harriman was " a native of Maryport,.. " who died on 3 December, 1831, " in the 72nd year of his age,.. " That he was born in 1760 is born out by the inscription that was on his gravestone. Could Harriman have been born in Thirsk? See note 4/17 below.

[3] Thus Harriman studied medicine at university, apparently for an MD. However, beyond knowing that he did not matriculate at Edinburgh University (Mrs. J. Currie, pers. comm.), I have no details of his (curtailed) university career. He may have attended Glasgow university, or even a German one.

on account of ill health, afterwards entered holy orders." It would appear that Watkins (1890:433) had a more detailed reference. Very frustratingly, I have not been able to find it. I have no details about Harriman and his having taken holy orders, and, in stating that Harriman "...returned to his classical studies...", I am not sure if this is simply a reference to his primarily classical school education. It is not clear if Harriman was a graduate.[4] He was ordained a deacon on 22 July, 1787, when he was described as "a literate person",[5] and nominated as Assistant Curate to the Curate of Bassenthwaite in Cumberland (J. P. Godwin, pers. comm.).[6] In subsequent ecclesiastical records Harriman is referred to as "Clerk",[7] meaning clergyman or "clerk in holy orders". In that no degree is given, Harriman was not a graduate (at least of an English university) (Miss M. S. McCollum, pers. comm.).

On 17 August, 1788, Harriman was ordained a priest by the Bishop of Carlisle at Rose Castle. He was described as "entitled" to be Assistant Curate of Newton Reigny, near Penrith, stipend £20, but "Licenced to serve Bassenthwaite" (J. P. Godwin, pers, comm.).[8] There is no evidence that Harriman botanised whilst a curate at either Bassenthwaite or Newton Reigny. I believe all his Cumberland records in Turner and Dillwyn's *The Botanist's Guide through England and Wales*, 1805, and Winch's *Remarks on the Flora of Cumberland*, 1824, were made later. Harriman used to visit

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[4] In a letter to Winch dated 13 April, 1805 (ref: W1.208), Harriman makes it clear that he is not an "A.M." (M.A.). The following advert appeared in the *Newcastle Courant* for 13 October, 1792: "A Curacy Wanted. A clergyman in priest's orders & *a graduate* [my italics] would be glad to be engaged in a curacy. He has no objection to situ. or extent of duty, provided the salary is tolerably adequate & in the mean time would be happy to accept a genteel appt. in a good school. Letters addressed to the Rev. J. Wood, Maryport, near Cockermouth, Cumberland, will be duly attended to." It is not clear if this advert relates to Harriman or if it is a complete red herring. However, the annual visitation by the archdeacon to Barnard Castle in 1794 was in November (see below). Harriman was unlicensed at Barnard Castle. See note 3/9 above. Perhaps the annual visitation was imminent in October, 1792, and Harriman was, therefore, seeking alternative employment?

[5] In the seventeenth century a common description of a priest in ecclesiastical records was "*in Artibus Literatus*": a priest without a degree who had merely studied in the arts (Brownbill, 1915: 30; M. G. Underwood, pers. comm.).

[6] Cumbria Record Office. Bishop of Carlisle's Register ref. DRC/1/8 page139.

[7] For example, Auckland Castle Episcopal Records. Diocese book 1793, with later additions, f.20. Durham University Archives and Special Collections [DUASC].

[8] Cumbria Record Office. Bishop of Carlisle's Register ref. DRC/1/8 page 154.

Maryport for up to five weeks around August each year, as will be demonstrated later.

In 1788 Harriman moved to Barnard Castle in County Durham. The first service (a marriage) he performed there was on 27 October, 1788 (J.F. Hargrave, pers. comm.). Harriman was a sub-curate at Barnard Castle, and it appears that he was unlicensed. This matter was to "be enforced this [sic] Summer", that is, the summer of 1795.[9] As will be seen, Harriman held eight separate appointments in the Church, all curacies. Miss M. S. McCollum (pers. comm.) states: "...the employment of sub-curates at that period was very much a personal matter between the sub-curate and his immediate superior. Many sub-curates were employed for only a few months at a time, and the contract could therefore be terminated quickly by either employer or sub-curate. It was common for sub-curates to change jobs frequently..." Harriman was never given a living. In a letter to Sowerby dated 29 October, 1816, Harriman states:

> ...There was a Time when I wished to write Something on Lichens, & was anxious with a View to that, to visit the Collections of those who had written on the subject; but never having been my own Master, & my Finances being rather scant, I had it not in my Power to do so. If the Bishop [Shute Barrington (*q.v.*)] had given me a Living at that Time (& I asked his Lordship for one then vacant, while the Ardour [for lichens] was full upon me [1798-1806]) I certainly shou'd have visited all the Collectors in the Kingdom at least. He did not think it fit however to do this, & I did not therefore chose [sic] to write any Thing. I did not blame the Bishop for giving the Living to another - I have no Doubt he had sufficient Reason for doing so. I have an high Opinion of his Lordship, as all his Clergy, I believe have, & it is flattering to me, that his Lordship has told others he had a great Respect for me; & indeed, if he had not spoken favourably of me, I shou'd have concluded he though [sic] favourably from his uniform Kindness to me for many Years. He recommended me to my present Curacy [Heighington] which is as desirable a one as any in the Diocese; & I was appointed to the Curacy of Gainford on his Recommendation, which at the time was a good one. If a Living shou'd come now, it wou'd come too late, as my sight has failed so much, that I cou'd not examine Lichens - had I never examined any I shou'd, I believe, have enjoyed good Sight...[10]

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[9] Auckland Castle Episcopal Records: Bound archidiaconal and episcopal visitation returns for Durham diocese 1791-1792, vol. I, f. 356^{r}, Barnard Castle archidiaconal return, 16 November, 1794. **NB. This return has been misfiled: notify DUASC.** The employer, that is, Harriman's immediate superior, "was supposed to ensure that each sub-curate was licensed by the bishop on his appointment, but this provision was often ignored-presumably because licences stipulated the minimum stipend which an assistant should be paid!" (Miss M. S. McCollum, pers. comm.).

[10] JS ref: 9/A25/f.101.

In the second of two footnotes to this letter Harriman remarks: " ...I wish Lichens had been under his [Smith's] Arrangement. " This must be a reference to *English Botany* in which Smith incorporated Acharius's work, apart from his generic concepts (Hawksworth and Seaward, 1977: 10).

Harriman was at Barnard Castle for seven years. He was licensed to the Curacy of Eggleston, a Chapel of Ease [11] to Middleton-in-Teesdale (MacKenzie & Ross, 1834:255) on 22 September, 1795,[12] and conducted his first recorded service there, a christening, on Sunday, 27 September, 1795.[13] However, it will be demonstrated that he did not actually move home to Eggleston until July, 1796. This is material in terms of Harriman's first botanical expedition into Upper Teesdale, an excursion he made with Oliver.

I now wish to demonstrate that it was whilst Harriman was at Barnard Castle that he became a botanist. Included in *The Botanist's Guide* and Turner and Dillwyn's *The Botanist's Guide through England and Wales*, 1805, are a number of Harriman records made in Barnard Castle and its environs. Harriman's records for *Gagea lutea, Helleborus viridis, H. foetidus,* and *Astragalus glycyphyllos* near Barnard Castle are included in both works. In a letter from Eggleston dated 4 June, 1799, Harriman informed Sowerby that:

> ...The Specimens of Lichen exanthematicus you had from me , I gathered in Company with my Friend, & Master in Botany, Mr. Cleasby, Surgeon at Barnard Castle, in this County, near Mr. Morrit's Bridge, Rookby [sic] Park, Yorkshire.[14]

Although somewhat ambiguous, in all the circumstances I interpret this as meaning that it was Cleasby who taught Harriman his botany. That both Harriman and Oliver learnt their field botany through medicine will be noted. I have only come across one

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[11] A chapel subordinate to the parish church, founded for the ease of those living at some distance (Livingstone, 1996:101).
[12] Auckland Castle Episcopal Records. Diocese book 1793, with later additions, f.20. DUASC.
[13] DCRO. Register of christenings for the Chapelry of Eggleston. Ref. EP/Egn 1/1.
[14] JS ref: 9/A25/f.61.

other reference to Cleasby in Harriman's correspondence. In a letter to Winch dated 19 June, 1802, Harriman states:

> ...I have no correspondent at Cambridge nor had I ever. I am indebted to Mr. Cleasby of Barnard Castle for my Cambridge specimens who got them from thence through Professor Lax [15] who is not a botanist...[16]

What is known about Cleasby? *The Medical Register* for 1779 (p.80), 1780 (p.90) and 1783 (p.65) (Simmons, 1779, 1780 and 1783) shows a " Stephen Cleesely " [sic] (1779) and a " Stephen Cleeseley " [sic] (1780 and 1783) at Barnard Castle under "Surgeons and Apothecaries." Wallis & Wallis (1988:119) includes " 'Dr' " Stephen Cleasby (b1760 a1804), surgeon apothecary of Barnard Castle. It will be noted that Cleasby, Harriman and Oliver were all the same age.[17] In Harriman's herbarium at Liverpool Museum there is a gathering of *Osmunda regalis* L. noted "Kendal Mr. Cleasby" and in Edward Robson's herbarium at Sunderland Museum there is another of Cleasby's gatherings: *Sorbus aria* (L.) Crantz with the data "Native specimen f[m] Cumberland. Dr. Cleasby, 1793." Cleasby was also a correspondent of Robson's.[18]

Cleasby and Robson may have first met in 1793 in the following circumstances. The Society for Promoting the Study of General & Natural History & Antiquities at Darlington was founded in late 1793.[19] Robson was the first treasurer of the society.[20] Perhaps Cleasby also joined in 1793. William Hutchinson Esq. (*q.v.*) of Barnard

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[15] William Lax (1761-1836). Lowndes's professor of astronomy and geometry in the university of Cambridge from 1795(Clerke, 1892: 299).

[16] W1.055.

[17] Wallis and Wallis (1988: 163) show a John Harriman apprenticed to William Dent, apothecary of Thirsk in North Yorkshire at 4 September, 1763. On page 119 a William Dent is shown as an apprentice to Stephen Cleasby of Barnard Castle at 2 August, 1804! Mrs. J. G. L. Burnby (pers. comm.) remarks "...as for Rev. John Harriman (1760-1831) it would seem very likely that he had been an apprentice of sorts to the John Harriman who was himself an apprentice of William Dent. Probably a nephew not a son as J. H. senior started his apprenticeship in c. 1763 when J. H. junior was already three years old. (Apprentices were not supposed to be married, and rarely were). "

[18] Edward Robson's Botanical Autograph Album, Friends' Library, London. Ref. Ms Box T_1/14. All bar eight of the signatures in the Album were cut from letters addressed to Robson. These eight were given to Robson by Harriman in August, 1812, according to a note by Robson in the album.

[19] " THE *Gentleman's Magazine*: for NOVEMBER, 1793 [p. 1035]. BEING THE FIFTH NUMBER OF VOL. LXIII. PART II ", that is, Anon., 1793. A Manuscript entitled *Darlington Natural History Society, 1793* is in the library of the Darlington & Teesdale Naturalists' Field Club. The first item in this manuscript is dated 24 November, 1793.

Castle **(pl. 33)** was the first secretary of the society.[21] I doubt if Harriman was a member because of the expense involved, particularly in attending meetings in Darlington, some sixteen miles from Barnard Castle. However, it was the intention to have corresponding members (Longstaffe, 1854:xix).

William Hutchinson Esq. (1732-1814) FSA of The Grove, Barnard Castle , practised as a solicitor in Barnard Castle. His leisure was devoted to literary and antiquarian pursuits. He was clerk of the Lieutenancy to the County and steward of the manor of Barnard Castle,[22] as well as being a (senior) freemason (Goodwin, 1891: 346-347; Doyle *et al.*, 1995: 9; Hodgson, 1916). He had some interest in mineralogy (Hutchinson, 1790: 20-21), common amongst antiquarians. He and Robson both knew George Allan Esq. (1736-1800) of Blackwell Grange, Darlington, the distinguished antiquarian.[23] Hutchinson is probably best remembered for his *History and Antiquities of the County Palatine of Durham*, 1785, 1787 and 1794. In the third volume of this work, Hutchinson published Edward Robson's manuscript *Plantae Dunelmenses* which he prepared in 1794 and which will be discussed later.[24]

Hutchinson was related to William Hutchinson Esq. (*q.v.*) of Eggleston Hall.[25]

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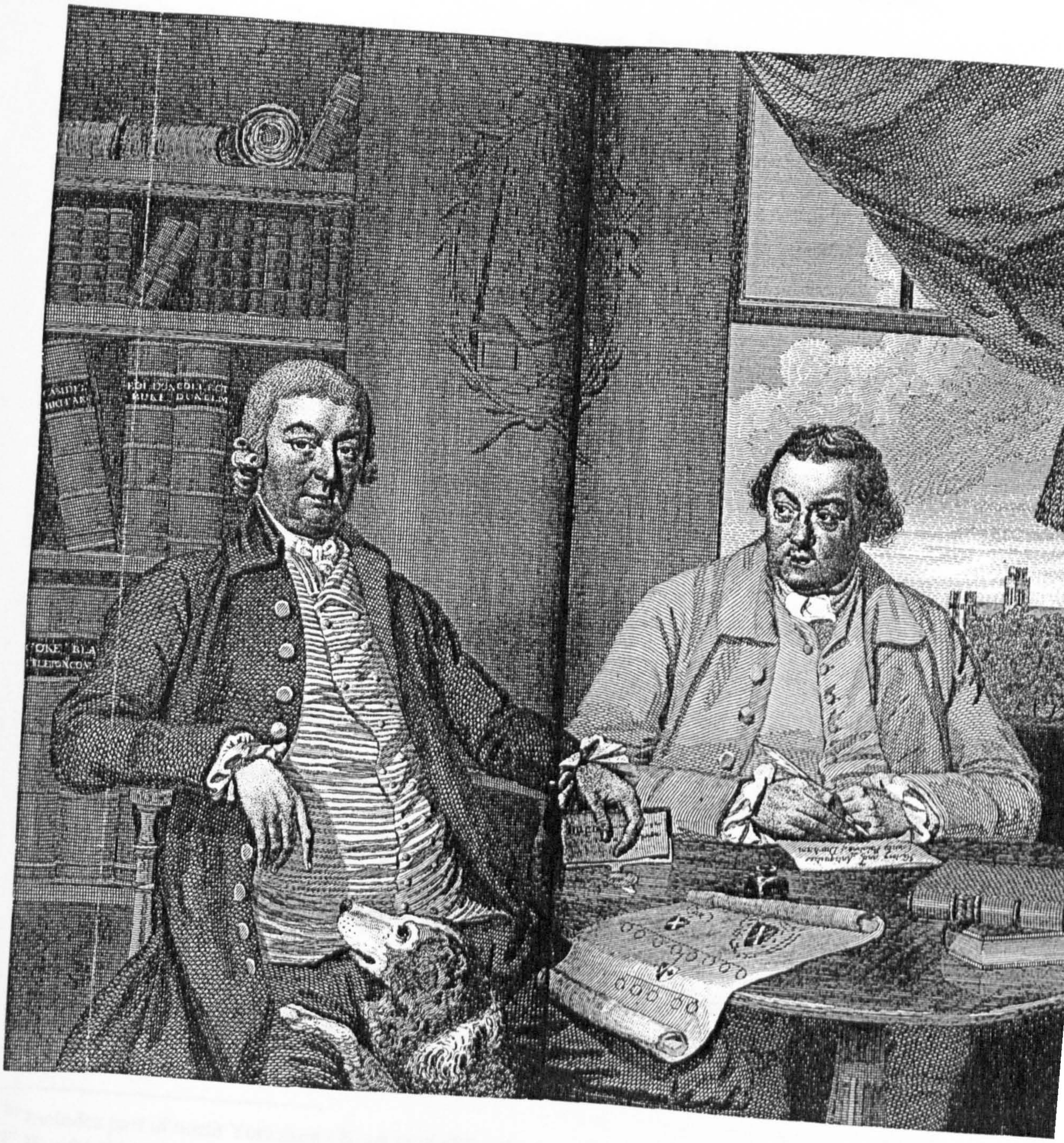
[20] See note 4/19 above.
[21] See note 4/19 above.
[22] Deleted.
[23] Allan had a private press at Blackwell Grange known as The Grange Press. Besides printing antiquarian tracts, he obliged friends by doing small printing jobs for them (Allan, 1829:80). I believe he helped Robson in this way (see below). Allan could print four pages at once (Nichols, 1814 **VIII**: 744). *Plantae rariores...* and Robson's *Plantae Desideratae*, and *Plantae rariores...* and Oliver's *Plantae Desideratae* each covered three pages (plus the blank side for the address). In terms of private printing at this time, it is interesting to note that it cost George Allan some seventy pounds to set up his printing workshop (Longstaffe, 1854: xiv).
[24] Hutchinson's (1794:507) acknowledgement is as follows: "The author was indebted to the ingenious Mr. Edward Robson, of Darlington, for permission to publish this list, he having presented it to the Darlington Society, established 'For promoting the Study of General and Natural History, Antiquities, &c.' "
[25] The chapel of ease to Middleton-in-Teesdale in the grounds of Eggleston Hall is now in (dangerous) ruins. However, Mackenzie & Ross (1834:255) state that the following inscription was on a mural monument in the chancel "Sacred to the memory of William Hutchinson, Esq[r] who died July 31[st] 1769, in the 39[th] year of his age. He was eldest son of George Hutchinson, Esq. nephew and heir to William Hutchinson, Esq. of Barnard Castle."

Plate 33. William Hutchinson Esq. of Barnard Castle (on the right) and George Allan Esq. of The Grange, Darlington. Frontispiece to Vol. **VIII** of Nichol's *Literary Anecdotes*, 1814. *Del.* J. Kay, *sculpt.* J. Collyer.



I now want to establish that whilst Harriman was at Barnard Castle he got to know Edward Robson. The role that Harriman played in the botanical discovery and floristic recognition of Upper Teesdale arises out of him arriving at Eggleston already knowing Robson. It is unlikely that Harriman, a sub-curate, got to know Robson through William Hutchinson **Esq**. of Barnard Castle. My scenario is as follows. Following the completion of his manuscript *Plantae Dunelmenses* in May, 1794 (**pl. 34**), Robson (*q.v.*) had his *Catalogus Plantarum rariarum* [sic] *circa Darlington sponte nascentium* (Catalogue of rarer wild plants around Darlington[26]) (**pl. 35**) privately printed. The Darlington catalogue is based on *Plantae Dunelmenses.* On the reverse of the Darlington catalogue is Edward Robson's printed "*Catalogus plantarum britannicarum quae sunt a me desideratae* E. Robson" (Catalogue of British plants desired by me, E. Robson) (**pl. 35**). Robson circulated the lists to his botanical friends: the first of duplicates he could offer in exchange for the second, the duplicates which he desired. On 1 November, 1795, Robson wrote to Sowerby thus:

> ...It is near one year & a half since I sent thee my List of desideratae - thou will observe - I have been enabled by the kindness of my Friends to cross many out - ...[27]

Amongst those crossed out are *Pulmonaria maritima* (*Mertensia maritima* (L.) Gray) and *Brassica monense* (*Coincya monensis* (L.) subsp. *monensis*). In the third edition of Withering's *An Arrangement of British Plants...*, 1796 (**I**: xi-xii), he includes "A List of the Names of those who have favoured this Edition with their Assistance." Amongst the names is that of "Mr. Edward Robson, A.L.S. *Darlington, Durham*". This edition comprised four volumes. On page 229 of volume II is the entry for

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[26] Includes part of north Yorkshire.[JS ref:16/A48/f.78].

[27] JS ref:16/A48/f.78. This letter is written on a sheet of A3 paper upon which has been printed Robson's *Catalogus Plantarum britannicarum quae sunt a me desideratae*, covering half one side. On the reverse of the *Catalogus Plantarum britannicarum...* has been printed Robson's *Catalogus Plantarum rariarum circa Darlington sponte nascentium*. Robson's letter to Sowerby of 1 November, 1795, is opposite the *Catalogus Plantarum britannicarum...* and runs on to the bottom of the

Plate 34. Edward Robson's introduction to his *Plantae Dunelmenses*, dated 22 May, 1794. Darlington & Teesdale Naturalists' Field Club.

To the Society established at Darlington for the promotion of the knowledge of Natural History &c.

Planta Dunelmenses; or

A Catalogue of the more rare Plants which grow within the county of Durham, arranged according to the Linnean System.

The following list contains the names and places of growth of the more rare Plants which I have gathered within the County during the course of the present summer. From the county and the great variety of soil and situation which it affords, I am convinced a great many may be added; and I hope this first essay towards a complete Catalogue of its vegetable productions will be followed by communications from other members of the society.

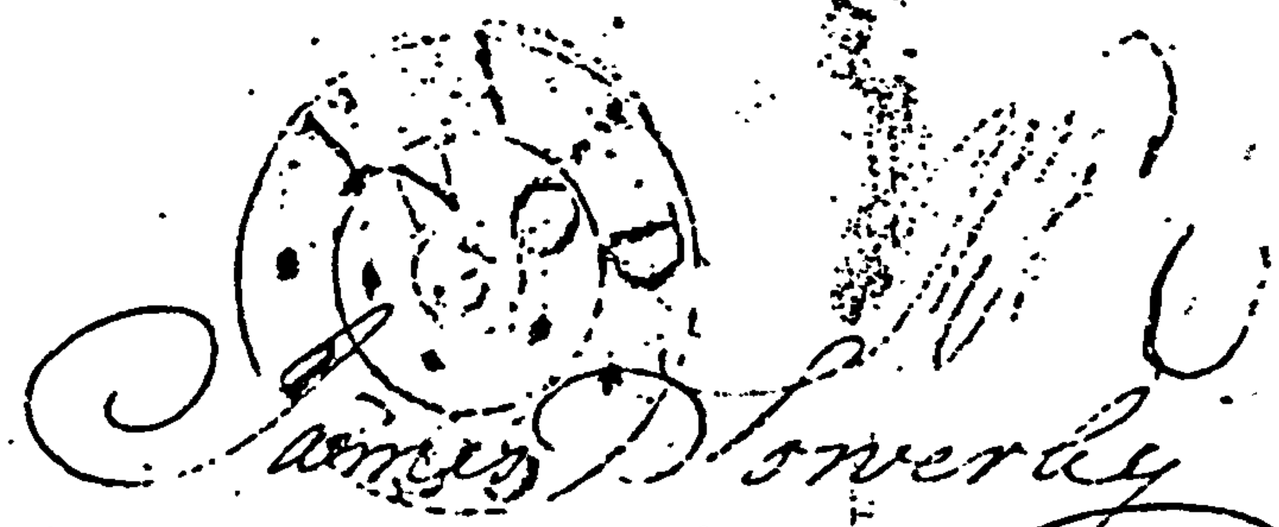
The Plants which are common in every part of our District are not inserted; the particular habitats of such as I have found in most parts of the county are omitted, and only noted those which are more rare.

Richard Richardson

Darlington 22 June 1794.

Plate 35 (<u>one sheet</u>). Edward Robson's *Catalogus Plantarum britannicarum quae sunt a me desideratae*, and, on the reverse, his *Catalogus Plantarum rariarum* [sic] *circa Darlington sponte nascentium*. James Sowerby Correspondence, Natural History Museum, London. Ref. 16|A48|f.78.

E. Fisher Esq



James Doherty

No 2. Mead Place

near the Asylum

London

Paid

Settlement Street
Pentonville

Dear Sir

I do it most heartily upon your own
plan had the pleasure of hearing from Mr Knowles thy
kindness in proposing to undertake the Genus Rosa in the
Botanical magazine and indeed to address Mr to procure
for binding the all of Miller's Gardener Dictionary & Martyn's
work published, except the two first parts (which I have
binding with Banksia) but suppose must now of it has
come out by this time — I think it a very useful work, not
only for the Gardener as well as Botanist & will accom-
plish a favor if will accompany it with as many numbers of thy
"Coloured figures of English Fungi" as are ready — I fancy I may be
able to send something in this way worth thy acceptance — have
paid some attention to this Class of Plants & am anxious to see
on what plan it is executed — If the Bookseller of whom I
may purchase Martins Dict. has Nos 1 & 2 germ. please to
get it for me — I was a little surprised at receiving a Letter
from Mr Masham Sec L.S. desiring future communications might
be addressed to him — I suppose some new arrangement has taken
place, I sincerely hope Dr Smith continues President — I have
not seen a list for 1795.

I expected to have heard from thee long ere this, to
inform me of the Ribes was presented to the Society in June as
thou proposed, or any meeting since? —

I have picked up some specimens of thy deciduate
which are laid to one side for thee — Mr Inman to send by the first
private conveyance if more accumulate do not fail in my
way — It is now one year & a half since I sent thee
my list of deciduate — from which observe I have been
enabled by the kindness of my friends to cross many out —
In turning over a few of the Catalogue of Eng. Bot. I find
Scrapias grandiflora — Thalictrum alpinum — Ancist. Falcon.
Lepidium didymum — Hypericum circulata — Asplenium Lanceo.
and Trifolium maritimum are of this Class & consequently will be
very acceptable to me — I may observe as before any specimens wou
can be conveniently stowed will come [illegible]

Catalogus Plantarum britannicarum quæ sunt a me desideratæ. E. Robson.

Pinguicula villosa. Lusitanica.
Schœnus ferrugineus.
Scirpus pauciflorus.
romanus
Holoschœnus.
triqueter
Agrostis minima.
Poa nemoralis.
bulbosa.
alpina.
distans.
palustris.
Festuca cambrica.
glabra.
Cynosurus echinatus.
Potamogeton pectinatum.
setaceum.
Polycarpon tetraphyllum.
Statice maritima.
Echium italicum.
Campanula hybrida.
Gentiana filiformis.
Ligusticum cornubiense.
Sison segetum.
verticillatum.
Echinophora spinosa.
Allium Ampeloprasum.
carinatum.
vineale.
Ornithogalum pyrenaicum.
Anthericum serotinum.
Juncus filiformis.
biglumis.
triglumis.
spicatus.
Elatine Alsinastrum.
Pyrola secunda.
Scleranthus perennis.
Cucubalus viscosus.
Cotyledon lutea.
Spergula laricina.
Chelidonium corniculatum.
hybridum.
Cistus salicifolius.
Aquilegia alpina.
Thalictrum alpinum.
Ajuga pyramidalis.
Mentha villosa.
Melampyrum pratense.
Antirrhinum arvense.
repens.
Scrophularia Scorodonia.
Myagrum sativum.
Subularia aquatica
Draba stellata.
Lepidium petræum.
anglicum.
Thlaspi hirtum.
montanum.
Cochlearia anglica.
Dentaria bulbifera.
Cheiranthus erysimoides.
sinuatus.
Brassica campestris.
orientalis.
monensis.
Arabis Turrita.
Cardamine petræa.
Sisymbrium Irio.
Lavatera arborea.
Malva parviflora.
Genista pilosa.
Pisum maritimum.
Lathyrus Nissolia.
hirsutus.
sylvestris.
palustris.
Vicia lutea.
Vicia lathyroides.
bithynica.
Astragalus uralensis.
Lolium M. ornithopodioides.
ochroleucum
glomeratum.
Medicago falcata.
Sonchus palustris.
Hieracium alpinum.
Taraxaci.
Auricula.
molle.
villosum.
spicatum.
Crepis fœtida.
Hypochœris maculata.
glabra.
Serratula alpina.
Carduus acaulis.
Santolina maritima.
Artemisia campestris.
cæsiolescens.
Gnaphalicum luteo-album.
supinum.
Erigeron canadense.
alpinum.
Senecio paludosus.
sarracenicus.
Inula Pulicaria.
Matricaria suaveolens.
maritima.
Anthemis maritima.
Lobelia urens.
Orchis mitaris.
abortiva.
Satyrium hircinum.
repens.
Ophrys Corallorhiza.
lilifolia.
Loeselii.
aranifera.
Serapias grandiflora.
Zostera marina.
Typha angustifolia.
Carex parula.
incurva.
brizoides.
divisa.
tomentosa.
strigosa.
recurva.
capillaris.
Eriocaulon decangulare.
Xanthium strumarium.
Amaranthus Blitum.
Ceratophyllum demersum.
Salix myrsinites.
lanata.
lapponum.
retusa.
Atriplex farinosa.
Acrostichum ilvense.
Asplenium lanceolatum.
Polypodium fontanum.
Adiantum trapeziforme.
Trichomanes pyxidiferum.
Lycopodium inundatum.
Sphagnum alpinum
Phascum montanum.
repens.
alternifolium Dickson.
axillare. D.
Splachnum sphæricum. D.
Fontinalis pennata.
Mnium ramosum.
osmundaceum. D.
Bryum incurvum.
imberbe.
barbatum. Curtis.
aureum.
carneum.
Hypnum pinastrum. b.
stramineum. D.
fluitans.
compressum
ornithopoides.
clavellatum.
Jungermannia multiflora.
inflata.
quinquedentata
angulosa D.
sphagni. D.
nemorosa.
resupinata.
reptans.
pusilla.
Targionia hypophylla.
sphærocarpos. D.
Riccia minima.
glauca.
fluitans.
natans.
fruticulosa. D.
Anthoceros punctatus.
Lichen lacteus.
sphæroides. D.
confluens. D.
graniformis. D.
muscorum. Relhan
quernus. D
gelidus.
lenigerus. D.
upsaliensis.
subimbricatus. R.
sinuatus.
fluviatilis.
tenuissimus. D.
tenuissimus. R.
stellatus. R.
ampullaceus.
cochleatus. D.
fallax. D.
venosus.
buriensis.
fuliginosus. D.
papillaria. D.
plicatus.
barbatus.
lanatus.
pubescens.
scaber.
Fucus subfuscus. Woodward
concatenatus.
setaceus.
endiviæfolius.
verticillatus.
Ulva cornuta.
montana.
dichotoma.
diaphana.
flavescens.
capillaris.
Conferva confragosa.
dichotoma.
atra.
elongata.
pellucida.
nigrescens.
pennata.
parasitica.
Lycoperdon fornicatum.
Carpobolus.
coliforme. D.

Edward Robson

Catalogus Plantarum rariarum circa Darlington sponte nascentium.

HIPPURIS vulgaris.
Veronica scutellata.
montana.
Pinguicula vulgaris.
Utricularia vulgaris.
Iris fœtidissima.
Schœnus Mariscus.
nigricans.
compressus.
Scirpus sylvaticus.
Eriophorum vaginatum.
Nardus stricta.
Agrostis spinula.
Melica nutans.
Poa crillata.
retro-fracta. Curtis.
Rottboillia incurvata.
Montia fontana.
Podagro-maritima.
Galium boreale.
Potamogeton natinum.
Pulmonaria officinalis.
Plumbilia farinosa.
Lysimachia vulgaris.
Anagallis tenella.
Campanula latifolia.
glomerata.
Samolus valerandi.
Vernascum nigrum.
Atropa Belladonna.
Rhamnus catharticus.
Frangula.
Ribes rubrum.
spicatum. nov. sp.
aspratum.
nigrum.
Grossularia.
Vinca minor.
Chrysosplenium Vulvaria.
Gentiana Amarella.
Bupleurum tenuissimum.
Oenanthe crocata.
Scandix odorata.
Smyrnium Olusatrum.
Apium graveolens.
Viburnum Lantana.
Parnassia palustris.
Linum perenne.
Drosera rotundifolia.
Myosurus minimus.
Berberis vulgaris.
Galanthus nivalis.
Ornithogalum luteum.
Colchicum autumnale.
Alisma ranunculoides.
Trientalis europæa.
Paris quadrifolia.
Butomus umbellatus.
Pyrola rotundifolia.
Caryophyllum alternifolium.
Saxifraga hypnoides.
Saponaria officinalis.
Silene nutans.
Stellaria nemorum.
Cerastium arvense.
Sergula nodosa.
Reseda Luteola.
Rumex Patus.
Spiræa Filipendula.
Rosa villosa.
spinosissima.
Rubus idæus.
Geum rivale.
β. luteo.

Comarum palustre.
Nymphæa lutea.
Thalictrum minus.
Ranunculus Lingua.
Trollius europæus.
Helleborus viridis.
Nepeta Cataria.
Mentha rotundifolia.
Melampyrum sylvaticum.
Lathræa squamaria.
Orobanche major.
Lepidium latifolium.
Cardamine amara.
Turritis glabra.
hirsuta.
Brassica muralis.
Isatis tinctoria.
Erodium moschatum.
Geranium phæum.
sylvaticum.
sanguineum.
Malva Alcea.
Fumaria claviculata.
Genista anglica.
Astragalus glycyphyllos.
hypoglottis.
Vicia sylvatica.
Hedysarum Onobrychis.
Trifolium subterraneum.
medium.
Hypericum humifusum.
Hieracium paludosum.
Carduus heterophyllus.
Gnaphalium dioicum.
Erigeron acre.
Senecio erucifolius.
Aster Tripolium.
Centaurea Calcitrapa.
Orchis pyramidalis.
ustulata.
Serapias latifolia.
longifolia.
Zannichellia palustris.
Chara tomentosa.
hispida.
Carex dioica.
pulicaris.
limosa.
pallescens.
distans.
pendula.
Salix triandra.
pentandra.
Empetrum nigrum.
Juniperus communis.
Equisetum fluviatile.
hyemale.
Osmunda Spicant.
crispa.
Asplenium Scolopendrium.
Polypodium phegopteris.
Thelypteris. Huds.
lobatum.
fragile.
Dryopteris.
Lycopodium Selaginoides.
Selago.
alpinum.
Phascum subulatum.
serratum. Dicks.
Polytrichum subrotundum.
alpinum.
urnigerum.
Mnium fontanum.

Mnium palustre.
crudum.
Bryum acicularе.
extinctorium.
flexuosum.
heteromallum.
hypnoides & var.
paludosum.
pyriforme.
Hypnum crispum.
albicans.
undulatum.
fluitatum.
crista-castrensis.
loreum.
36, 31. Dill.
aduncum.
viticulosum.
riparium.
Jungermannia purpurea. Lightf.
73, 35. Dill.
platyphylla.
72, 33. Dill.
epiphylla.
furcata.
multiflora.
pinguis.
Lichen atro-virens.
corallinus.
geographicus.
immersus.
ventosus.
Parellus.
scrupulosus.
physodes.
furfuraceus.
glaucus
perlatus.
læte-virens.
islandicus. —
glomuliferus.
nigrescens.
scrobiculatus.
fragilis.
jubatus.
Agaricus ostreatus.
lateralis. —
betulinus.
Boletus nummularius. —
subtrictus. Bolton. —
betulinus.
caseolus. Bolt. —
suberosus. B.
confragosus. B. —
hispidus. B.
hetroclitus. B. —
resupinatus B. —
Hydnum auriscalpium.
Auricularia papyrina. Bulliard.
reflexa. do.
Lycoperdon stellatum.
Epidendrum.
Peziza cornucopioides.
coccinea. Bolt. 104.
Clavaria muscoides.
phacorrhiza.
Helvella coccinea. Bolt. 100
membranacea.
nicotiana. B.
Sphæria sanguinea. B.
maxima.
fraxinea.
obtusa. —
bombardica. B.

Pulmonaria maritima. It reads: "...All the leaves sitting; upper ones oval, lower ones oval-battledoreshaped [sic]. Mr. HARRIMAN, from Mr. Robson...Near Maryport, Cumberland, Mr. HARRIMAN..." These are the only references to Harriman in the whole of the third edition. On 15 August, 1798, Edward Robson sent Sowerby a box of plants which included *B. monense* from his garden.[28] In his next letter to Sowerby dated 7 March, 1799, Robson concludes by stating:

> ...The Brassica monense last sent was not wild, but the individual root was got me by J. Harriman f^m. the sea shore near Maryport Cumberland w^ch. Circumstance might be noticed, if you figure it.[29]

How did Harriman know that Robson desired each of these plants? He must have seen, or less likely been told about, Robson's *Catalogue of British plants desired by me.* The obvious candidate to have shown him it is Cleasby. When did Harriman first make contact with Robson by giving him plants of *P. maritima* and *B. monense*?

The third edition of Withering, 1796, was reviewed in January, 1797 (Stafleu and Cowan, 1988 **VII**: 400). It was, therefore, presumably published sometime in late 1796, that is, Harriman had been in touch with Robson by this date, at the latest. In Robson's herbarium there are two gatherings of particular interest in this context. The first is of *Rumex maritimus* L. which is labelled "Root from Egleston. 1795", and the second, *Sedum sexangulare* L. also labelled "Root from Eglestone. 95". It will be demonstrated that Harriman went home to Maryport around August each year for four or five weeks. It would seem clear that on his 1795 trip home he collected roots of *P. maritima,*[30] *B. monense, R. maritima* and *S. sexangulare* (etc?) and sent them to Robson from Eggleston as an opening gesture in their botanical relationship. This was not an unusual tactic at this time. For example, Winch employed it (Davies [sic] &

Catalogus Plantarum britannicarum... This is in much the same manner as Robson's *Plantae rariores*... and *Plantae Desideratae* and his letter to Sowerby of 12 May, 1798: ref. see note 5/22.

[28] JS ref:16/A48/f.83.

[29] JS ref:16/A48/f.84.

Leathart, 1986:28). Why did he send them from Eggleston? We know that he was licensed to Eggleston on 22 September, 1795, and that he conducted his first service there on 27 September, 1795. However, the last marriage Harriman performed at Barnard Castle was not until 17 December, 1795 (the format of the baptism and burial registers of this period does not require the officiating minister to sign each entry (J. F. Hargrave, pers. comm.)). I suggest that Harriman took his annual leave in 1795 effectively between appointments and that he called in at Eggleston on his way home to Barnard Castle to perform his duties, which may have necessitated a short stay, before returning home to his overlapping duties in Barnard Castle. Harriman would be anxious to get the roots to Robson as soon as possible. Someone may have been visiting Darlington from Eggleston or Middleton-in-Teesdale, and taken Harriman's box of fresh plants for Robson with him. This was a common practice at this time to avoid the high postal charges. In these circumstances, Harriman's first contact with Robson would be sometime between 22 September, 1795, and 1 November, 1795, the date of Robson's letter to Sowerby. In that Harriman knew that Robson wanted *P. maritimus* and *B. monenses*, he must have seen Robson's *Catalogus Plantarum britannicarum quae sunt a me desideratae* of May, 1794 (see below), after he returned from his leave in Maryport in or about August, 1794.

One wonders whether Harriman already knew about Oliver's botanical finds in Upper Teesdale when he first wrote to Robson at this time, and, if so, if he told Robson.

In *English Botany* (Sowerby, 1797 **VI**: *t.* 361 dated December 1, 1796) we read of *Bartsia alpina* L. "THE wild recent specimens of this very rare plant, from which our drawing was taken, were gathered [with some other plants] July 27, 1796, near

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[30] There is a sheet of *P. maritima* in Edward Robson's herbarium labelled "Ex. Horto". There can be little doubt that he is referring to his own garden.

Middleton in Teesdale, Durham, by the Rev. Mr. Harriman, and Mr. Oliver surgeon, of Middleton, and sent us by our liberal correspondent Mr. E. Robson." That this was Harriman's first botanical excursion into Upper Teesdale I will now demonstrate.

I want first to consider why Harriman left Barnard Castle when he did. It has already been mentioned that Archdeacon Pye's annual visitation return for Barnard Castle dated 16 November, 1794, suggests that Harriman was unlicensed. It has also been suggested that if indeed he was unlicensed it was probably because licences stipulated the minimum stipend which an assistant such as Harriman should be paid. That the next annual visit to Barnard Castle would presumably be due about November, 1795, would suggest that Harriman was in fact unlicensed and that was why he had to move, in September, 1795. Why did he go to Eggleston? Harriman replaced Isaac Farrer who was "...old and poor" [31] and had presumably effectively retired. The chapel of ease to Middleton-in-Teesdale at Eggleston was in the centre of "a botanic garden" laid out by William Hutchinson (1763-1826) [32] of Eggleston Hall (Mackenzie & Ross, 1834: 255) (**pl. 36**). As the following extracts show, Hutchinson of Eggleston was a botanist of some standing himself, but I have found no published references to him as such. His library was the key to Harriman being able to determine *Gentiana verna*, as will be explained later. In a letter to Sowerby dated 4 June, 1799, Harriman states:

> ...I found Lichen corneus in Company with W. Hutchinson Esq[r]. of Egleston Hall & the Rev. Mr. Headlam of Wycliffe in Yorkshire,[33] two very nice Botanists...[34]

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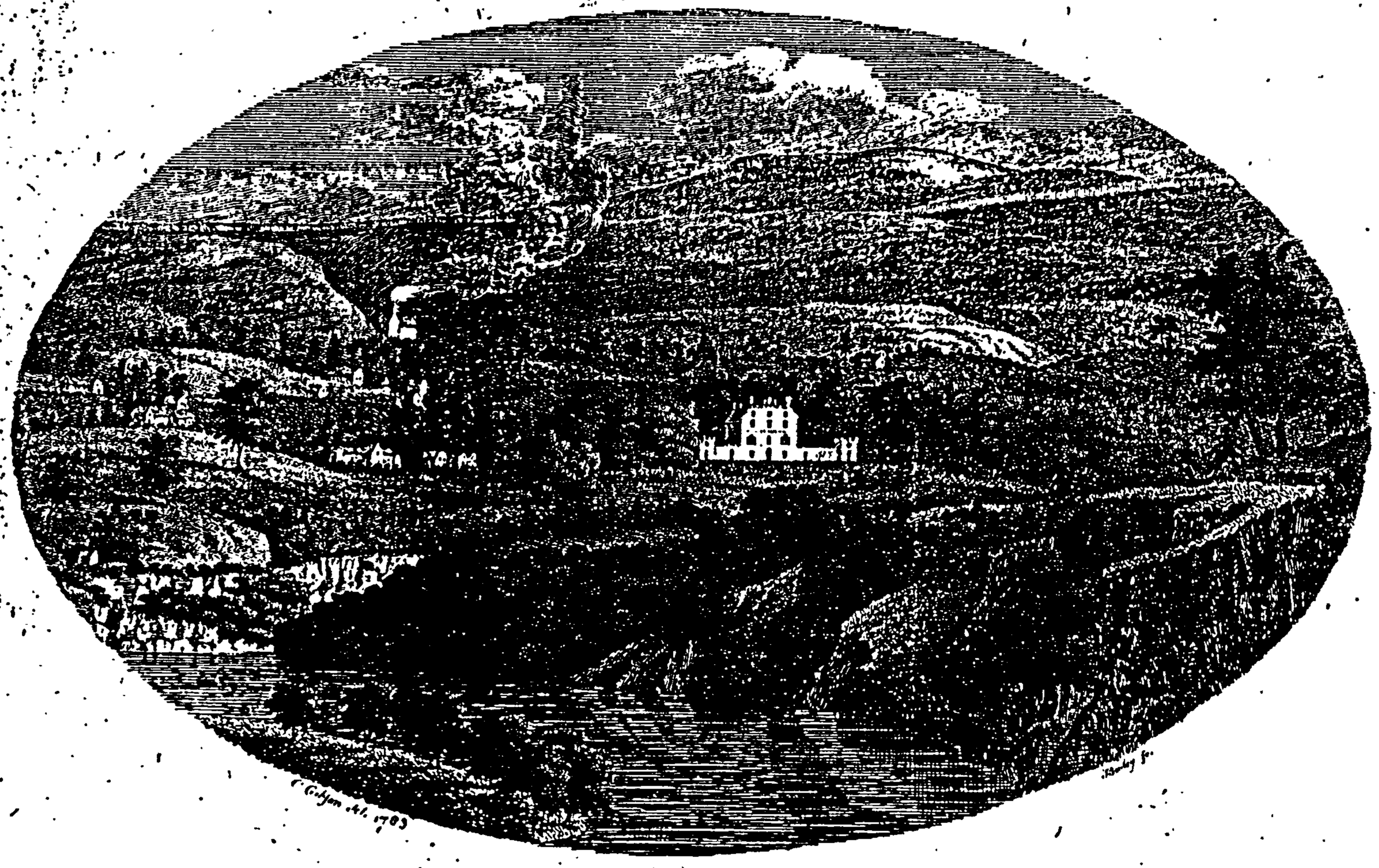
[31] Auckland Castle Episcopal Records. Diocese book 1793, with later additions, f. 20. DUASC. Farrer lived in Middleton-in-Teesdale, " 3 miles distant. "

[32] Hutchinson (1794: III 276) describes Eggleston House as "lately the seat of Timothy Hutchinson, Esq. but now of his eldest son, William Hutchinson, Esq..." MacKenzie & Ross (1834:255) state that the botanic garden was laid out by "..the late Mr. Hutchinson..." William Hutchinson died in 1826. I am sure it is him to whom they are referring.

[33] 1768-1853. Archdeacon of Richmond, North Yorkshire, and Rector of Wycliffe, also in North Yorkshire (Boase, 1891: 328). He made the acquaintance of Olaf Swartz when he visited Sweden in the winter of 1801 (DT ref: 2 f.14. Letter from Harriman to Dawson Turner dated 20 March, 1802). Headlam obtained for Harriman Acharius's *Lichenographiae suecicae prodromus*, 1798, whilst in Sweden. However, he was apparently principally interested in mineralogy (DT ref:1 f.186. Letter

Plate 36. View of the village of Eggleston at a distance, from the River Tees; Eggleston House is prominent in the centre. *The history and antiquities of the County Palatine of Durham*. Wm. Hutchinson, 1794. Painted by C. Gibson in 1783 and engraved by John Bailey (*q. v.*). See *Durham Topographical Prints up to 1800*. P. M. Benedikz, 1968.



EGGLESTON

In a letter to Sowerby dated 20 November, 1798, Harriman points out that " William Hutchinson Esq[r]. of Egleston Hall was the first who found L. [Lichen] decorus..." [35]

and in a letter dated 6 November, 1799, he tells Sowerby:

> ...If you live near Mr. Salisbury's be so obliging as to desire him, if he have [sic] any Spec. of Plants for me, to send them along with the Roots he has to send to Mr. Hutchinson.[36]

Sowerby lived in London. That "Mr. Salisbury" was R.A. Salisbury (*né* Markham) (1761-1829), who was born in Leeds and acquired Peter Collinson's (1694-1768) garden at Mill Hill in London (Desmond, 1977:537-538), is demonstrated by a letter from Harriman to Sowerby dated 6 May, 1803, in which Harriman states: "I sent off a Parcel for Mr. Salisbury last Friday, which contained a Letter & a small Spec[m]. of a curious Fossil for you;.." [37] Clearly, Sowerby knew Salisbury, who was a founder member of the Linnean Society of London (Walker, 1988:18). If Hutchinson was a friend of Salisbury's, as opposed to simply being someone who purchased plants from him, he was fraternising with the botanical *literati* of the day. In a letter from Eggleston dated 3 March, 1801, Harriman mentions to Sowerby:

> ...as a Gentleman in the Village, who takes in your botanical Works, told me he had ordered his Bookseller in London, to send him such of the Numbers [of *English Fungi*] as were due, - I thought I would put off acknowledging the Receipt of the Figures [of *Rhizomorphas*], till I saw these Numbers. *I saw them on Sunday* [my italics].[38]

And again, Harriman remarks in a letter to Sowerby dated 28 August, 1801, from Gainford:

> ...I saw some late Numbers of EB [*English Botany*] at Mr. Robson's the other Day. I used to see that Work & EF [*English Fungi*] as a Friend of mine at Egleston received them from London, namely, three or four Times in a Year:..[39]

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from Harriman to Dawson Turner dated 15 July, 1801 + W1: 033: undated letter from Headlam to Winch in 1801 correspondence).

[34] JS ref: 9/A25/f.61.

[35] JS ref: 85/A72/f.54.

[36] JS ref: 9/A25/f.66.

[37] JS ref: 9/A25/f.92.

[38] JS ref: 9/A25/f.74.

[39] JS ref: 9/A25/f.77.

At this time, Eggleston consisted of forty-five houses only.[40] Clearly, Harriman is referring to William Hutchinson **Esq.** of Eggleston. I am curious as to why he is not acknowledged as a botanist. Surprisingly, I have found no evidence of Oliver ever having been in contact with him, especially as in country areas the surgeon apothecary was the regular medical attendant to a wide range of social classes, including "Esq.'s" (Loudon, 1986:114). In the list of subscribers to William Hutchinson of Barnard Castle's *History and Antiquities of the County Palatine of Durham*, [41] the address of William Hutchinson of Eggleston is given as "the Temple, London." Apparently, in 1785, when he was twenty-two years of age, he was training as a lawyer, a profession which both Hutchinson **Esq.** of Barnard Castle and George Allan **Esq.** of Darlington followed. Sturgess (1949 **II**: 396) confirms that William Hutchinson of Eggleston, County Durham, was admitted to the Honourable Society of the Middle Temple (London) on 7 November, 1783, the year in which Oliver arrived in Middleton-in-Teesdale. Perhaps Hutchinson practiced his profession from a London home and only returned to Eggleston for holidays and to attend to estate business? Harriman will have seen the figures of the *Rhizomorphas* in the library at Eggleston Hall, on a Sunday, presumably just after he had taken one of the two services.[42] Harriman's access to Hutchinson seems to have been restricted. This is further illustrated by the following extract from a letter to Winch from Harriman dated 26 March, 1800:

> ...Be good enough to desire Mr. Headlam to inform you of the day of the intended botanical excursion as soon as he & Mr. Hutchinson have fixed it as I probably shall not be acquainted with it 'til the evening before if I am to be of the party.[43]

As with Hutchinson **Esq.** of Barnard Castle, perhaps Harriman's apparently restricted access to Hutchinson **Esq.** of Eggleston, with it s much smaller population,

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[40] Auckland Castle Episcopal Records. Diocese book 1793, with later additions, f.20. DUASC.
[41] 1785 **I**: 594.
[42] See note 4/41 above.
[43] W1.005.

was accounted for simply in terms of class. Or perhaps Hutchinson of Eggleston was away working in London a lot?

Although Harriman's employer, that is, his immediate superior, at Eggleston was William Marks, curate of Middleton-in-Teesdale, [44] it seems too much of a coincidence that Harriman, a botanist, should be appointed to Eggleston, where the lord of the manor, William Hutchinson, in whose grounds the chapel of ease was situated, was also a botanist. Harriman seems to have acted as something of a gardener in the botanic garden at Eggleston Hall. In a letter to Winch dated 20 August, 1800, Harriman writes:

> ...I brought with me from Maryport seedlings of Pulmonaria maritima & roots of Convolvulus soldanella which I put into Mr. Hutchinson's garden...[45]

In a letter to Smith dated 15 January, 1803, Harriman states: " I had plants of the new Carex [*Kobresia simpliciuscula*] in a garden at Egleston when Mr. [James] Dickson visited that neighbourhood in '99..." [46] Harriman acknowledges receipt of " the Roots " from Winch in a letter dated 26 March, 1800.[47] Harriman had a room in lodgings. I am in little doubt that the only garden he had access to was that of William Hutchinson of Eggleston Hall. He could improve Hutchinson's collection of plants and, at the same time, cultivate his plants for his own benefit. Perhaps Hutchinson's relative, William Hutchinson Esq. of Barnard Castle, who was Clerk of the Lieutenancy to the County of Durham and chaired the manorial court at Middleton-in-Teesdale as Deputy to the Steward, George Allan, had something to do with

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[44] Durham University Library Archives and Special Collections. Ref. Auckland Castle Episcopal Records. Diocese book, 1793.
[45] W1.010.
[46] JES ref: 22 f. 161.
[47] W1.005.

Harriman's appointment to Eggleston? The patron of the "Mother Church" at Middleton-in-Teesdale was the Crown.[48]

Hutchinson of Eggleston Hall corresponded with Robson.[49] Robson includes a record of his in his *Plantae Dunelmenses* of May, 1794, namely, *Rubus chamaemorus* L. "Near Eggleston, *William Hutchinson, Esq.*" [50]

To return to the question of whether the botanical excursion on 27 July, 1796, was Harriman's first into Upper Teesdale. Births and burials at Eggleston were registered at the "Mother Church" in Middleton-in-Teesdale.[51] Archdeacon B. Pye made his annual visitation to the Chapelry at Eggleston on 28 June, 1796 (J.F. Hargrave, pers. comm.).[52] At this visitation the policy was changed and births and burials were now to be registered at Eggleston, with effect from 22 September, 1795, the date Harriman was licensed to Eggleston. Harriman will not have been keeping parish registers. On 28 June, 1796, Pye ordered Harriman to make up the registers and to submit the bishop's transcripts.[53] Harriman did not submit the transcripts until 13 August, 1796.[54] As he was new at Eggleston I would have expected him to have been anxious to comply with the archdeacon's order as soon as possible. However, Harriman had to start preparing the registers from scratch. This would have been difficult enough even if Harriman had been resident in Eggleston. It is evident from the registers **(plates 37 & 38)** that Harriman made the transcripts up to the end of July. We know that Harriman spent 27 July, 1796, in Upper Teesdale with Oliver. I hold that Harriman moved from Barnard Castle to Eggleston in July, 1796. This would account for the delay in Harriman submitting the transcripts: he made up the registers on

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[48] See note 4/41 above.
[49] See note 4/18 above.
[50] See note 2/66 above: p. 19.
[51] DUASC. Ref. Auckland Castle Episcopal Records. Diocese book 1793, with later additions, f.20.
[52] See note 4/13 above.
[53] Letter dated 13 August, 1796, from Harriman to the Diocesan authorities. DUASC. Ref. Durham Diocesan Records. Eggleston bishop's transcript 1795-1796.

Plate 37. A copy of the first pages of the registers of christenings and burials for the chapelry of Eggleston, commencing on 27 September, 1795. Durham University Library Archives and Special Collections.

A Copy of the Register of Christenings and Burials for the Chapelry of Egleston.

Christenings.

1795
Sept. 27. Margery, Daughter of William Kilburn of Egleston, Blacksmith, & of Mary his Wife.

1796
Jan. 10. Isabella, Daughter of Andrew Irvin of Blackton, Smelter, & of Ann his Wife.

Mar. 13. John, Son of Joseph Browne of Togerthwaite, Farmer, & of Elizabeth his Wife.

Mar. 20. Jane, Daughter of John Robinson of Egglesbourn, Farmer, & of Phillis his Wife.

Apr. 17. Jane, Daughter of Joseph Dann of Brackenbourn, Farmer, & of Ann his Wife.

May 10. William, Son of Richard Robinson of Egglesbourn, & of Mary his Wife.

July 24. Elizabeth, Daughter of Margaret Hutchinson of Egglesbourn, illegitimate.

Burials.

1796.
June 28. Hannah Headlam of Egleston, Widow of Anthony Headlam late of Egleston, Smelter, aged 60.

July 12. Mary Dent of Egleston, aged 63.

The above-written is a true Copy of the Register of Christenings & Burials for the Chapelry of Egleston.

John Hamilman, Sub-Curate.
John Barnes } Chapel-warden.

Plate 38. The first page of the register of christenings for the chapelry of Eggleston. The register was opened on 22 September, 1795. Durham County Record Office.

The Register of Christenings for the
Parish of Tyddyn
in the Christenings have been reported
in Middleton Parish Register

1795.

Jan. 17. Margery, Daughter of William Fullbrook of Egerton
Blacksmith & Jane his Wife

1796.

Jan. 10. Isabella, Daughter of Andrew Irvine of Blackton
Smelter, & Anne his Wife

March 3. John, Son of Joseph Browne of Hoyle Hamlet, Farmer
& of Elizabeth his Wife

March 23. Jane, Daughter of John Stokenden of Egerton
Farmer, & of Ellen his Wife

April 17. Jane, Daughter of Joseph Dixon of Egerton Bowen
Farmer, & of Amelia his Wife

May 8. William, Son of Richard Stokenden of Egerton
Smelter, & of Mary his Wife

June 28. { John Hutchinson, Traveller.
Joseph Dixon, Stockinger, Blackburn

July 24. Elizabeth, Daughter of Margaret Hutchinson
Egerton, illegitimate

Aug. 2. Thomas, Son of George Dalby of Egerton
Smelter, & of Barbara his Wife

becoming resident in the chapelry. Why was there a delay in Harriman moving? It would be difficult for him to find lodgings in Eggleston where there were only forty-five houses.[55] We know that he had a delicate constitution and, therefore, he would not want to walk to and from lodgings in Middleton-in-Teesdale, a return journey of some six miles, regularly, and possibly twelve on a Sunday. I think it safe to assume that a horse did not go with the job. In any event, it would be far more convenient for him to be resident in the chapelry. Harriman did, in fact, eventually find a room in Eggleston.[56]

That Harriman did indeed move to Eggleston in July, 1796, is confirmed by the dates of the earliest gatherings made in Upper Teesdale by Harriman which he sent to Robson. Robson's herbarium at Sunderland confirms that Oliver and Harriman sent Robson *Tofieldia pusilla* and *Rubus chamaemorus* in July, 1796, from "Near Middleton-in-Teesdale" **(plates 39 & 40)**. I am in no doubt that Harriman would have been very keen to send Robson fresh material of the "Teesdale rarities" for *English Botany* as soon as possible after he moved to Eggleston, especially as there was not much of the 1796 flowering season left, and his departure for Maryport for four or five weeks would be imminent. On 27 July, 1796, Oliver took Harriman on his first botanical excursion into Upper Teesdale to gather fresh material of the "Teesdale rarities" which were still in flower.

Thus, Harriman arrived at Eggleston in July, 1796. He was a botanist, and he already knew Edward Robson. The period during which Oliver and Harriman co-operated in the floristic recognition of Upper Teesdale will be dealt with in a later chapter.

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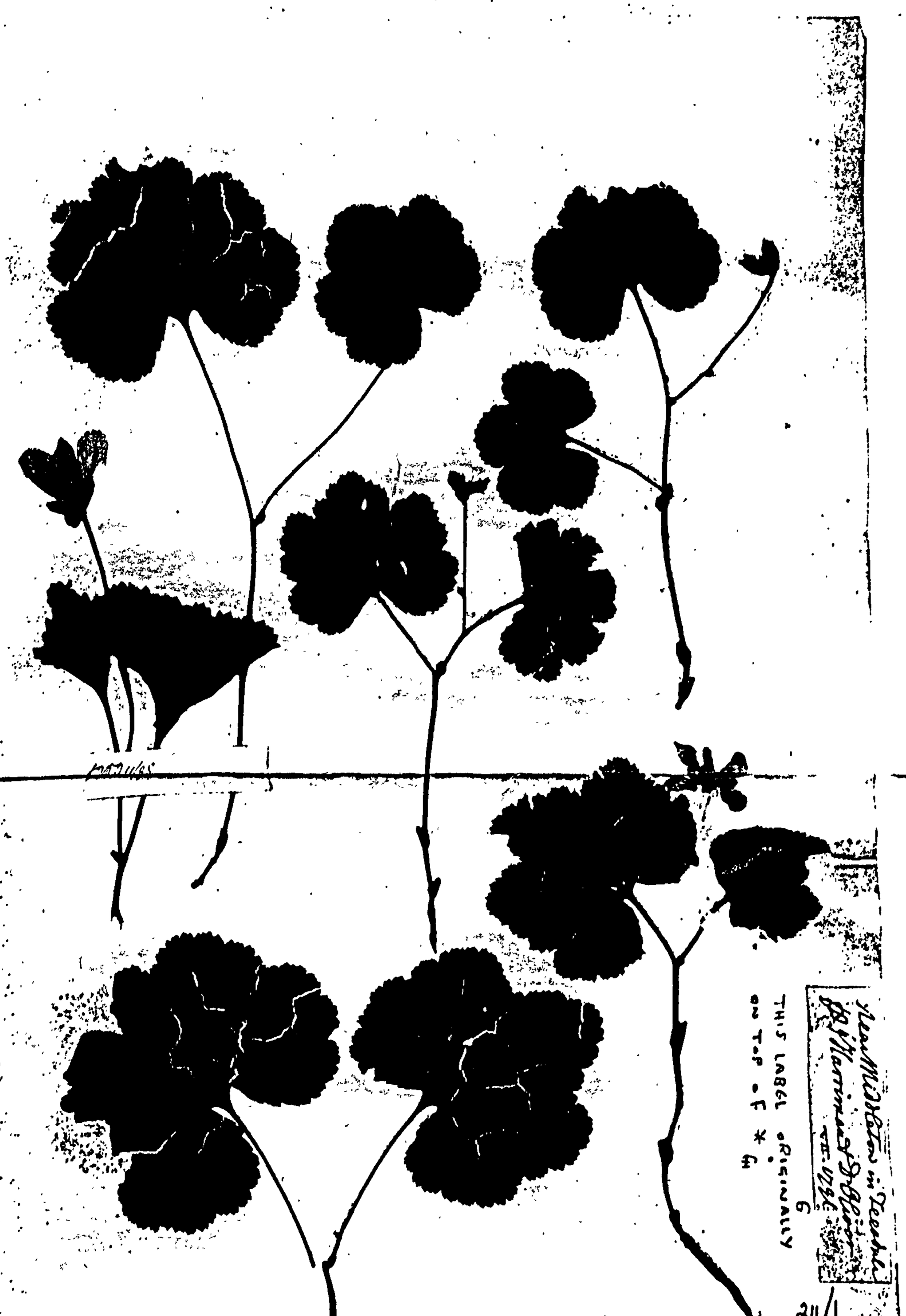
[54] See note 4/54 above.
[55] See note 4/41 above.
[56] W1.151. Letter from Harriman to Winch dated 30 May, 1804.

Plate 39. *Tofieldia palustris* (*pusilla*) in the herbarium of Edward Robson at Sunderland Museum.

Tofieldia palustris. Huds
Wett. Lo. iij: 358.

{ *No. 1. Curtis. 6/1784.*
2. Mrs Middleton
3. Dr. Garriman
Dr. Oliver 1796.

Plate 40. *Rubus chamaemorus* in the herbarium of Edward Robson at Sunderland Museum.



368

Rubus Chamaemorus. Knout-berry. * Near Ilkley Moor, Yorkshire. VIII 96 Mr. Middleton Harriman

Harriman is remembered as a lichenologist. As has been demonstrated, he first showed an interest in lichens in early 1797. I am in no doubt that Harriman was attracted to the study of lichens by Oliver, who had been studying them for a number of years. That Harriman took up lichens seriously in 1798 is demonstrated as follows. On 16 March, 1802, Harriman wrote to Sowerby:

> ...The third Summer [after I went to Eggleston] I made an attack upon Lichens, & these have had so many Charms for me, that ever since I have paid very little Attention to any other Plants, but have neglected even my old Favourites, Carices & Salices...[57]

In letters to Winch, dated 9 March, 1802,[58] and Dawson Turner, dated 20 March, 1802,[59] Harriman makes almost identical statements. His interest in lichens lasted until 1806, when he gave up botany altogether.[60] That he did so was not unusual. In a letter to Dawson Turner dated 3 May, 1807, Winch states:

> ...in fact that science [botany] is rather loosing than gaining ground in the north for except a few south country [indecipherable] mosses detected by [William] Backhouse [61] near Darlington no new discoveries have been made for many months past - Brunton,[62] Weighell [*q.v.*]& Waugh [63] are dead - Robson, Harriman & Dalton [*q.v.*] I apprehend have relinquished botanic pursuits. What has become of Symons [64] I know not...[65]

Similarly, William Backhouse wrote to Winch on 25 July, 1808:

> ...I should be much keener of the study of botany had I had any assistance but for the last eighteen months I have not had an individual to accompany me in my botanical excursions. The only two botanists in Darlington Edward Robson and James Jansen [66] have nearly given over the study.[67]

The second and last volume of *The Botanist's Guide* appeared in 1807. This local waning of interest in botany must be linked to the completion of this work. One might

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[57] JS ref: 9/A25/f.81.
[58] W1.046.
[59] DT ref: 2 f.14 (4 pp.).
[60] DT ref: 4 f.133. Letter from Harriman to Turner dated 16 October, 1806. W2.012. Letter from Harriman to Winch dated 14 May, 1806.
[61] 1779-1844. A Darlington Quaker and Cousin of James Backhouse Snr. (1794-1869).
[62] See note 2/46 above.
[63] Richard Waugh (d. 1806). Co-editor of the first volume of *The Botanist's Guide*, 1805.
[64] Rev. Jelinger Symons. See note 5/49.
[65] DT ref: 5 f.62.
[66] James I'Anson (1784-1821). Linen weaver of Darlington. Quaker associate of the Darlington Backhouses and Edward Robson.
[67] W2.077

have expected it to act as a stimulus to the making of new records, instead of as an anticlimax. However, D. E. Allen (pers. comm.), himself a flora writer, remarks:

> It is oddly not all that rare for the publication of a local Flora to have the paradoxical effect of leading to a decline in interest and activity locally afterwards...The years during which one is in preparation have a galvanising effect, putting the compiler in touch with other interested people locally and even awakening interest in some *de novo*. But all too often that interest dissipates as soon as all the records have appeared in print. People seem to think that all that can be found in the area has now been found for the time being. Also, there is no longer the stimulus of expecting to see their records published. I have seen this happen in the case of several Floras in the last 30 years.

The lichens are dealt with in this second volume. The Editors (Winch & John Thornhill) state in the preface (p.vii):

> As a considerable number of British Lichens are now, *for the first time* [my italics], arranged according to the Methodus Lichenum of Acharius [1803],[68] the Editors flatter themselves that this part of their publication will prove acceptable to scientific Botanists;..

Earlier in this preface (p.ii) Harriman's contribution is acknowledged thus:

> ..: and for the new and valuable observations of the Rev. J. Harriman, on many species of those obscure tribes of Plants formerly known by the generic name of Lichen, (being the result of long experience, and confirmed by Swedish specimens, presented by Dr. Swartz) they feel themselves partcularly [sic] indebted.

Harriman's observations in 1807 constitute one of the first critiques of Acharius's *Methodus*. Turner was the first to describe new British lichens using the *Methodus*, in 1808 (Galloway, 1988:166).

On the face of it, it would seem that Harriman gave up botany in 1806 when his lichen contribution to the second volume of *The Botanist's Guide* had been put to bed. This may indeed have been one of the reasons, but his final letter to Dawson Turner dated 16 October, 1806, would seem to indicate that the timing was coincidental; his underlying reason was apparently one of resentment, perhaps because he did not feel that he had been accepted as a member of the inner sanctum of the lichenological *literati*. The letter reads as follows:

> ...As I have already at different times told you all I know as to any Lichens I have collected it would be useless to ask any more Information about them. I make no Doubt you have Spec^{ms}. from all the great Lichenists on the Continent. If you wou'd send me these to look at, I might

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[68]Acharius split Linnaeus's single genus into smaller independent genera in his *Methodus* (Galloway, 1988:149).

> perhaps make some valuable Discoveries. The Spec[ms.] I had from Swartz [69] & Acharius, enabled me to detect several Errours in the Works of the Latter. It is clear enough, I think, that these Gentlemen study the science only by their Firesides. And had Hoffman [70] examined Lichens where they grew, he w[d.] not have multiplied Species as he has done - it cou'd not for Instance, have escaped him , that his V. granulosa & P. decolorans are only different States of one Species...[71]

Harriman concludes the letter by saying that he would go to Newmarket were it less than fifty miles away to see a lichen in situ., "tho I have taken Leave of Botany." In a letter to Winch dated 26 August, 1806, Turner refers to himself and William Borrer [72] taking some immediate steps towards a "Lichenographica Botanica." [73] Harriman's letter of 16 October, 1806, is clearly his response to Turner's invitation to him to contribute to the proposed "Lichenographica Botanica". This letter is best read against the background of an earlier letter which Harriman wrote to Turner on 1 June, 1803. The first two paragraphs are unexceptional. They are followed by this outburst:

> ...You will be pleased to receive so short a Letter, & this Pleasure will not certainly be diminished, when I promise you that I will never again pester you with my trifling Remarks. Were you the only one who had neglected them, I might still think they were worth some Thing; but every Person I have offered them to, has treated them with the same neglect.[74]

In a sense, Harriman was like Acharius in being geographically and scientifically isolated. However, unlike Acharius, he seemed unable to establish a relationship with a Swartz - like figure in the botanical *literati* of the Metropolis and environs. Not being at his own disposal and money being so tight were also reasons which contributed to him not pursuing his ambitions in lichenology.

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[69] Olof Swartz (1760-1818) was the leading Swedish botanist of his day. He lived in Stockholm, whereas Acharius lived in a remote part of Sweden which made him scientifically isolated. Acharius, therefore, relied mostly on his friend, Swartz, for the provision of lichen specimens from foreign countries (Galloway, 1988:149).
[70] Georg Franz Hoffman (1760-1826). Author of *Descriptio et adumbratio plantarum e classe cryptogamia Linnaei quae Lichenes dicunter*, 1790-1801, 3 vols. Leipzig.
[71] DT ref: 4 f.133.
[72] See note 1/44 above.
[73] W 2.021+ see note 1/44 above.
[74] DT ref: 2 f.176.

In 1807 Harriman told Winch that he had "not entirely relinquished the intention of publishing a [review?] of the British Lichenography." [75] This came to nothing. In fact, Harriman never published anything. In that same year Turner and William J. Hooker called on Harriman at his home in Gainford on their way home from a botanical trip to Scotland. Turner remarked to Winch that Harriman "received us very politely, but not in such a manner as to induce us to lengthen our stay beyond the bounds of a mere call of civility. He seems to me a man of real talents, & I regretted extremely to see such a one so lost to himself & the world..." [76] In 1808 Harriman appears to have found himself. At forty-eight years of age he married, for the first and only time.

Before I deal with Harriman's marriage and the ensuing years, I want to try and give a proper idea of Harriman's standing as a lichenologist. This is not the place to analyse the many long and very detailed letters about lichens written by Harriman which I have read during the course of this study. I have to say that it is very tempting to try and do so, particularly in the context of James Edward Smith and Dawson Turner being regarded as two of the leading lichenologists of their day (Galloway, 1988). My feeling is that Harriman has not been properly recognised as a lichenologist. However, I will restrict myself to a number of illustrations of his standing. Inevitably, one turns to Smith and Turner. Smith (in Sowerby, 1814 **XXXVI**: *t.* 2539 [77]) states in *English Botany* under *Verrucaria Harrimanni* Acharius:

> We have long ago wished to dedicate to our liberal Friend, the Rev. Mr. Harriman, some one of the numerous Lichens of which he was the first discoverer, but could never obtain his consent, which probably his correspondent Dr. Acharius did not think of soliciting. We are glad that so worthy a name has become thus properly communicated...

Rev. John Headlam spent the winter of 1800/1801 on the continent. He visited Sweden. Harriman asked Winch to ask Headlam to procure for him Acharius's

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[75] Letter from Harriman to Winch dated 18 June, 1807. Ref. W2.058. Is this why he would not cooperate with Turner and Borrer?
[76] Letter from Turner to Winch dated 5 December, 1807. Ref. W2.065.
[77] Dated May 1, 1813.

Lichenographiae suecicae prodromus, 1798, which he did.[78] This was Acharius's first major work on lichens (Galloway, 1988: 149). Harriman informed Turner, in a letter dated 15 July, 1801, that he had the work but had "seen very little of Acharius's book yet." [79] In a letter, which Harriman replied to on 5 January, 1802, Turner states "You have now had Time to examine Acharius's Work, & I long to hear your Opinion of it." Harriman gave Turner his opinion in this letter.[80] It was Acharius's *Lichenographiae suecicae prodromus* which attracted Turner to the study of lichens (Galloway, 1988:154). In the library of the Linnean Society of London is to be found Harriman's personal copy of Acharius's second major work on lichens: *Methodus qua omnes detectos lichenes*, 1803. It is noted " This copy was presented by the author to The Rev. John Harriman F.L.S. & given by the widow of the latter to the Society. The additional figures & mss notes are by Mr. Harriman. Novr. 3. 1840." The "additional figures & mss notes" **(pl. 41)** are from Acharius's third major work on lichens: *Lichenographia universalis*, 1810.[81] Evidently he had borrowed this work. In 1804 Turner believed that there were only two copies of the *Methodus* in England: one with Smith and the other with Winch (Galloway,1988:163). It is not known when Harriman was presented with his copy but he certainly required it to comment on lichens for *The Botanist's Guide*, 1807. In 1806, when Turner and Borrer were contemplating a *Lichenographica Botanica*, Turner purchased Harriman's lichen

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[78] WI. 016. Letter from Harriman to Winch dated 8 December, 1800. DT ref: 1 f.186. Letter from Harriman to Turner dated 15 July, 1801.

[79] See note 4/79 above.

[80] DT ref: 2 f.2. Letter from Harriman to Turner dated 5 January, 1802.

[81] In 1810 Harriman was asked by Winch, who was considering writing a British Flora in English with full descriptions of the plants to enable identification (letter from Dawson Turner to Winch dated 2 September, 1809, ref: W2.084), to comment upon Smith's observations on lichens in *English Botany* which differed from his own. Harriman needed to borrow the relevant volumes of *English Botany* in order to do this (letter from Harriman to Winch dated December, 1810. Ref: W2.106). I believe he similarly borrowed Acharius's *Lichenographia universalis*, 1810, to complete this task. Whilst it was in his possession he made the "additional figures & mss notes" in his copy of Acharius's *Methodus qua omnes detectos lichenes*, 1803. If he intended to return to lichenology, he never did.

Plate 41 (two sheets). Harriman's (coloured) annotations of his copy of Erik Acharius's *Methodus qua omnes detectos lichenes*, 1803. The Linnean Society of London.

GENUS VIII.

GYROPHORA.

(a Γυρος, *gyrus* & Φορεω, *fero*).

(Umbilicaria HOFFM. SCHREB. SCHRAD.).

Character Naturalis.

APOTH. *Trica*, sessilis l. supra thallum elevata, plana convexa & hemisphærica, in- & externe atra, supra plicato-gyrosa, per ætatem inæqualiter rumpens, in latere interiori Sporas nudas proferens.

Plicæ in junioribus subverruciformes vel circinatæ magisque regulares, demum vario modo gyrosæ & flexæ confertæ, impressiones sinuosas in ipsa substantia interiori formantes, membrana communi supra tectæ.

GYROPHORÆ Genus inter Lichenes maxime singulare, nec cum ullo alio facile confundendum; tamen qua structuram Apotheciorum externam huic generi nimis accedunt species quædam *Lecideis* jam relatæ (*Lecidea* nempe *Oederi*, *sillacea* & *privigna*), quarum Apothecia initio poro pertusa & postea plicis variis supra notata observantur. — Nomen *Umbilicariæ* utpote per se non optimum, cum *Gyrophoræ* permutare necessum putavi. Prius enim a forma Thalli desumtum satis incongruum existimavi, si ex observationibus posthæc instituendis, ut præsumo, condoceamur, jam memoratas Lecideæ Species, atque etiam forte alias in posterum detegendas, thallo non umbilicato præditas, eodem Generi simul consociandas esse.

6. Gyrophora a γυρος Gyrus & φορος fertilis.

Ch. Ess. Apothecium orbiculatum operitur gyroso-plicato marginatum, Membrana colorata (atra) tectum, intus cinereum. —

THALLUS foliaceus membranaceo-cartilagineus l. subcoriaceus, plerumque rigidus fragilis, peltatus, suborbiculáris, simplex vel luxurians, margine repando sublobato & irregulari lacero crenulato, rarius integro).

Species.

1. GYROPHORA *glabra*: thallo membranaceo peltato inæqualiter lobato atro-virente, subtus atro, utrinque nudo lævissimo; tricis demum subglobosis rugoso-plicatis. G. heteroidea V. a. glabra Acll. 218.

Lichen glaber Lich. Pr. p. 144. (Excl. synon. *Lich. anthracini*). — *L. pullus* WESTR. N. Act. Sc. Stockh. 1793.

Icon. ACH. N. Act. Ac. Sc. Stockh. V. 15. T. 2. f. 5. a. b.

Habitat ad lapides montesque.

Obs. Pagina superior thalli lævissima nullis punctulis elevatis superficialibus, ut in *Gyrophora anthracina*. Color ex æneo fusco-niger. Margo thalli in perfectis speciminibus undulatus inciso-lobatus, in junioribus subinteger l. repandus. Tricæ rarius occurrunt. Specie omnino non differt & vix ut varietas consideranda venit

β. G. *polyphylla*: thallo complicato, laciniis multiplicatis luxuriantibus confertis irregularibus flexuosis crispis. G. heteroidea V. β. polyphylla Acll. 219.

Lichen polyphyllus LINN. & AUCTORUM.

Icon. HOFFM. Pl. Lich. T. 59. f. 2. ACH. l. c. T. 2. f. 5. e.

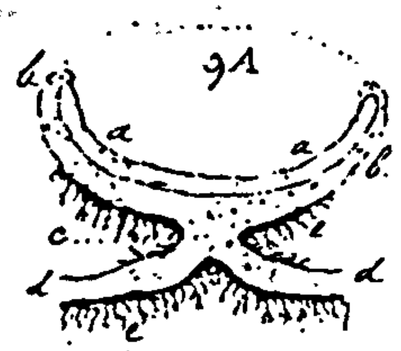
Habitat cum priori.

2. GY-

Gyrophora heteroidea: Thallo loviusculo tenui subrugoso fusco-virente cinerascente nigrescente, subtus nudo loviabro; Apotheciis demum confertis rugoso-plicatis.

Vide p. 203.

Parmelia ἀπαξμη, Scutella
εἰλεω, circumvolvo.



laciniis imbricatis planis multifidis angustissimis, apice pedato-incisis subciliatis; scutellis centralibus planis nigris, margine cinereo.

Lichen diffusus WESTRING. N. Act. Ac. Sc. Stockh. V. 12. p. 304.

Habitat ad lapides aqua interdum suffusas.

Obs. Thallo majori (latitudo sæpe 2-3 pollicaris) & laciniis angustissimis divaricatis incumbentibus margine (ex fibrillis paginæ inferioris densissimis atris) subciliatis a priori differt. Scutellæ rarissimæ & nisi perpaucæ in centro thalli occurrunt. Soredia vix ulla. Ob scutellas non ciliatas propius accedit ad *Parmeliam tyclosellidem* quam *Parmel. ulotricem*; quum autem laciniæ forma varient ut propria species haberi nequit.

39.

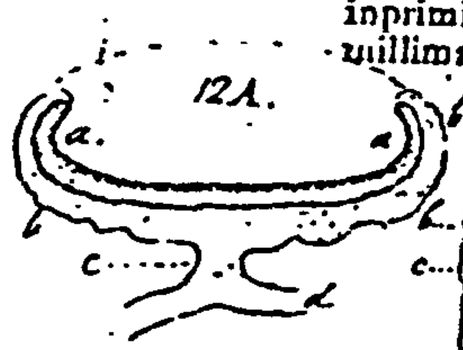
All. 481. 82. PARMELIA *ulothrix:* thallo submembranaceo stellato cinereo-glauco, subtus nigro-fibrilloso; laciniis linearibus angustatis multifidis flexuosis subciliatis; scutellis fusco-nigris subtus ciliatis, margine cinereo.

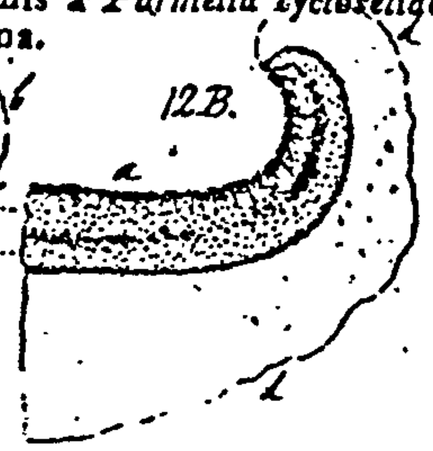
Lichen ulothrix Lich. Sv. Pr. p. 113. — *Lichen ciliatus* HOFFM. Enum. Lich. p. 69. — *Lichen obscurus?* EHRH. Cr. exs.

Icon. HOFFM. En. L. T. 14. f. 1. DILL. T. 24. f. 72.

Habitat ad corticem arborum Populi, Fagi, Juglandis.

Obs. Variat laciniis latioribus & angustioribus, cinereis, glaucis, fuscescentibus & nigricantibus. Thallus jam stellatus orbicularis, jam laciniæ absque ordine hinc illinc flexæ. Scutellæ per ætatem margine flexuosæ crenato-lobatæ. Ciliis scutellarum (sæpe deficientibus & facile elabentibus) inprimis a *Parmelia cycloselide* differt, cui alias simillima.





83. PAR

94 Lecanora virella All. 414.

PARMELIA *virella:* thallo submembranaceo stellato cinereo-viridi, subtus atro fibrilloso-spongioso, laciniis brevibus subimbricatis planis inciso-lobatis obtusiusculis; scutellis planis rufis, margine inflexo cinerascente integerrimo.

Lichen virellus Lich. Pr. p. 108.

Habitat in saxis. SWARTZ.

Obs. Viridissima fit dum humectatur. Præter soredia virescentia etiam granula coccinea glabra sparsa occurrunt, in Lichene recenti evidentiora. Thallus vix stellatus sub-orbicularis, diametro semi-unciali vel paullo ultra. Ob soredia undique erumpentia per ætatem totus Lichen pulverulentus evadit & lobuli vix distinguendi.

1A.

1B.

All. 490. Vide p. 250.

PARMELIA *recurva:* thallo crustaceo-membranaceo-stellato cinereo-virescente, subtus nigro fibrilloso-spongioso, laciniis subimbricatis angustissimis multifidis margine apiceque reflexis; scutellis concaviusculis rufis, margine inflexo virescente.

2B.

Lichen incurvus Lich. Pr. p. 167. PERSOON in *Ust.* Ann. d. Bot. St. 7. p. 24. — *Lichen multifidus* DICKS. Cr. Br. 3. p. 16. Icon. DICKS. l. c. T. 9. f. 7.

2C.

Habitat ad montes & saxa.

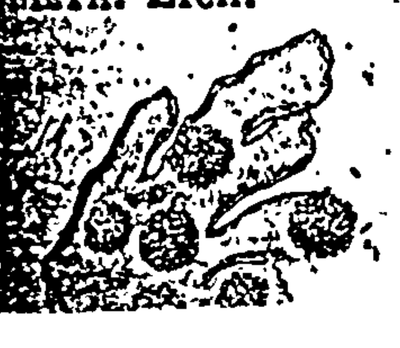
Obs. Thallus constanter orbicularis, diametro 2-4 pollicari & ultra. Pulvinuli l. potius forte soredia hemisphærica pulverulenta sparsa albo-virescentia. Color in olivaceum & nigricantem interdum mutatur. Scutellæ rarissimæ. Laciniæ æquæ ac earum apices recurvæ ut in *Parmelia stygia* & *P. stellari*, nec incurvæ.

2A.

48.

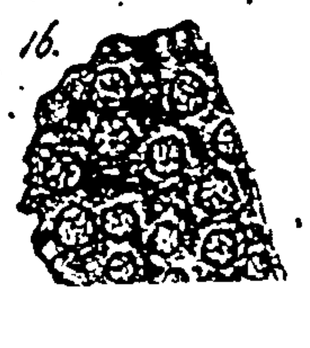
All. 488. Vide Supp. p. 48.

PARMELIA *aquila:* thallo cartilagineo-membranaceo substellato obscure fusco, subtus pallidiori nigro-fibrilloso, laciniis imbricatis angustissimis multifidis margine recurvis in ambitu



15.

16.



collection to this end.[82] Much to his surprise, Turner found the specimens " by no means splendid" and did not use the collection.[83] Turner wanted to visit Harriman at Eggleston in the summer of 1801. No doubt they would have visited Upper Teesdale. However, as I will demonstrate, Harriman put him off. Turner also invited Harriman to his home in Great Yarmouth. Harriman could not accept "not being at my own disposal..." [84] James Dickson (1738-1822) (Horsman, in press), a founder member of the Linnean Society of London and a leading British cryptogamist of his day, visited Upper Teesdale in the summer of 1799. However, he missed Harriman but caught up with him in Maryport.[85] Harriman's contact with Dickson was very intermittent and unproductive, not for the want of trying on the part of Harriman. More will be said later about Dickson's visit to Upper Teesdale.

Harriman wasted no time in seeking to become a Fellow of the Linnean Society of London. Robson wrote to Sowerby on 26 June, 1797, requesting, on Harriman's behalf, "...the Rules of the Linnean Society & a List of the Members, he [Harriman] has some thoughts of getting recommended as a Fellow..." [86] In a letter to Sowerby dated 14 September, 1798, Harriman thanks him "...for your kind Offer to propose me to the Society; & I may here after trouble you to propose me." [87] Harriman was elected a Fellow on 18 December, 1798, having been recommended on 16 October, 1798, by Aylmer. B. Lambert [*q.v.*], George Shaw,[88] James Dickson and James Sowerby.[89] Harriman wrote to thank Sowerby on 27 December, 1798.[90] He paid £2.12.6 on 14 January, 1799, as his Admission Fee and contribution to the Library

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[82] W2.021 & 031. Letters from Turner to Winch dated 26 August, 1806, and 9 November, 1806, respectively.
[83] W2.031. See note 4/83 above.
[84] DT ref: 1 f.186. Letter from Harriman to Turner dated 15 July, 1801.
[85] Letter from Harriman to Sowerby dated 8 August, 1799. JS ref: 9/A25/f.49.
[86] JS ref: 16/A48/f.76.
[87] JS ref: 9/A25/f.52.
[88] 1751-1813, FRS. Vice - President Linnean Society, 1788.
[89] Linnean Society Archives: Certificates of Recommendation.

Fund. A sum of £10.10.0 was paid on 5 February, 1800, in respect of Harriman (Miss G. Douglas, pers. comm.). What did the latter sum represent and who paid it on Harriman's behalf? Clearly, Harriman could not afford it. On 14 November, 1799, The Hon. Mrs. Jane Barrington wrote to Aylmer B. Lambert (1761-1842), another founder member of the Linnean Society, as follows:

> Last December I desired the favour of you to get The Reverend Mr. John Harriman made a Fellow of The Linnean Society which accordingly he was and [indecipherable] agreeable to the 5th. Article of the Society I think the annual payments are troublesome and therefore I will thank you very much to have it altered whilst Dr. Smith is in town and pay Dr. Smith the whole 10 guineas at once for him according to the 6th. article that will be deducting the last years payment and there will remain 9 guineas to be paid which I will be much obliged to advance for me and let me be indebted to you 'til I see you after C'mas.[91]

Jane Barrington (d. 1807) was the wife of Shute Barrington (1734-1826) who became Bishop of Durham in 1791 and presided over the see of Durham for thirty-five years (Grant, 1885: 294). He was a botanist and became a Fellow of the Linnean Society in 1812. A bust of him is in the library of the Linnean Society (Desmond, 1977:42). Jane Barrington was a botanist [92] and attended lectures on botany (and zoology?) by James Edward Smith at his home, along with other society ladies (Walker, 1988:19). Harriman made her acquaintance through *Gentiana verna,* a matter to which I will return. On the same day that she wrote to Lambert, Mrs. Barrington wrote to Smith himself:

> ...Last December I recommended The Reverend Mr. Jno. Harriman to be a Fellow of The Linnean Society and he was admitted according to the 5th. Article viz. The payment of a guinea a year. I have now to request of you that he may be a Fellow according to the 6th. Article which says that "Any Fellow choosing to pay 10 guineas in one payment will be excused any further annual payment or any Fellow making up his personal payment 10 guineas in one year will have his Bond given up." I have wrote to Mr. Lambert who told me you were in town desiring he would advance the money for me and settle it all so that Mr. Harriman knows nothing of the expenses but only that it is on this footing.[93]

Apparently, Harriman had made a good impression on his benefactor. One wonders why her husband did not act similarly and give him a living? D. M. Knight (pers.

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[90] JS ref: 9/A25/f.57.
[91] JES ref: 20 f.96.
[92] JES ref: 20.f.95. Letter from Jane Barrington to Smith dated 19 August, 1798.
[93] JES ref: 20.f.97. Letter from Jane Barrington to Smith dated 14 November, 1799.

comm.) points out "how few livings the Bishop actually had available in his diocese at his disposal - & of course they all depended on dead men's shoes - .. So while Barrington might have been more helpful, he may genuinely have had little he could do!" In 1779 Barrington had a long list of clerics for promotion (Longstaffe, 1854: xvii). On 2 September, 1806, the year he quit botany, Harriman wrote this woeful letter to his bishop, Shute Barrington:

> My Lord,
>
> Encouraged by your Lordship's Condescension, in conversing with me at different Times on the Subject of Botany; - I presume to offer some Observations, which I made in looking over a Box of Lichens, that were sent me by Drs. Swartz & Acharius. I hope your Lordship will not think me too presuming. I am anxious that I may not appear entirely undeserving the Attention & Kindness, which I have experienced from Mrs. Barrington & your Lordship.
>
> I am, my Lord,
> your Lordship's most grateful & most humble Servant
> J. Harriman [94]

Barrington sent Harriman's remarks on lichens to Smith.[95]

In a letter to Turner dated 12 February, 1802, Winch told him, amongst other things, that the previous week he had had the opportunity of inspecting one hundred specimens of lichens recently sent from Sweden by Swartz for Harriman.[96] He continues:

> ...[Harriman] is possessed of many [more?] species of this genus [lichen], but diffidence [!] prevents him sending them to the authors of the before mentioned work [*English Botany*] - he is also much to blame for his inattention to many of the more obvious plants...[97]

I can only think that Winch's reference to Harriman being diffident was tactical in that Turner knew Smith, an author of *English Botany*. It is not absolutely clear from his reference to "the more obvious plants" whether Winch was referring to lichens only. I suspect not. If I am right, he had the measure of Harriman in this important respect.

Another aspect of Harriman's temperament is revealed in a letter from Winch to Turner dated 13 February, 1806:

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[94] JES ref: 37.f.38.
[95] Letter dated 17 September, 1806. JES ref: 20 f.101.
[96] DT ref: 3 f.122 (4 pp.).
[97] Deleted.

> ...A catalogue of the species [of lichens] growing in these counties I shall soon print together with Harriman's observations on some obscure plants [98] - A few of his remarks I fear will differ from your opinions on the same subjects, but I can not suppress them [without certainly? [99]] giving him a cause to quarrel with me...[100]

Harriman was not averse to voicing his understandable resentment at the lack of reciprocity with regard to all the botanical specimens he had sent to his correspondents. I will give just two examples. It will be noted that he tailors his comments to his measure of his correspondents. In a letter to Sowerby dated 27 December, 1798, he states:

> ...We [Harriman and Oliver] have exported some Hundreds of Specimens of Lichens - all the rare Spec. of Lichens that have been received from this County have been furnished by us from this Neighbourhood - & how many, do you think, have we received in Return? One Specimen each of L. Burgessi, besides those you were so good as [to] send us, & that one from Dr. Smith. How much our respective Collections have been enriched for the Hundreds of Specimens of rare perfect Plants which we have supplied, the Erasu. in our Desiderata will show. I must allow, however, that you, Dr. Smith, & a few others have been Liberal to us...[101]

In a letter to Turner dated 20 March, 1802, Harriman states:

> ...I ought not to be obliged to sue for the Sight of any British Lichens: I ought to be in Possession of a complete Herbarium of British Plants: & I should not want one of them, had every Person to whom I have sent Spec[ms] made as ample a Return as you have done. What Boxes of rare Plants have I sent to Mr. Sowerby! & how few Plants have I received from him!...[102]

Harriman approaches the grouping described by Allen (1976:21-22), namely, a rural parson "...condemned to be stranded for the whole of [his life] without direct communion with fellow minds; and for those with scholarly leanings, .., a well-stocked library, copious letter-writing and, if they were lucky, a neighbour or two of vaguely compatible leanings were generally their only solaces. The very expense of books and their mainly unhelpful character were hardly an encouragement to those who wished to pass on and explore fresh fields, and it says much for the pioneers of those days that they should have proved so successful when thrown so totally on their own resources..." Harriman was fortunate to have direct communion with Oliver

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[98] The second volume of *The Botanist's Guide* published in 1807.
[99] Winch's distinctive writing is very difficult to decipher, unlike, thankfully, Harriman's.
[100] DT ref: 4 f.27.
[101] JS ref: 9/A25/f.57.
[102] DT ref: 2 f.14 (4 pp.).

when he was at Middleton-in-Teesdale. He had no such communicant at Gainford, and he could not afford a well - stocked library, although he apparently had restricted access to Hutchinson's library whilst at Eggleston. His situation at Eggleston was ripe for him to make a name for himself in botany. That he had to leave Eggleston must have been a great disappointment to him.[103] The first letter Harriman wrote to Sowerby following Oliver's split with him in the preceding April is dated 4 June, 1799 [104]. It is clear from this letter that he is missing his direct communion with Oliver. It is a very long letter and it contains a lot of botanical news. It was thus extremely helpful in this study, and is discussed elsewhere. Further, in Harriman's letter to Sowerby dated 29 October, 1816, he states:

> ...I wish I cou'd add any Thing to your Museum, but since I left Egleston, I have been quite out of the Way of any Thing...[105]

That Harriman was a cleric is only overtly evident in one letter. This letter also says something about the man. When he learnt that Sowerby had lost a son he wrote to him:

> ...Alas I feel much for you & Mrs. Sowerby. Your Affliction is great; but do not let your Grief, I beg of you, be immoderate; do not sorrow as those without Hope - your Boy is in Heaven! Whither, I trust, you & your Family will follow him in God's good Time. This Visitation is from God, a Being infinitely wise & good, who orders every Thing for the best, & that is best. Job was convinced of this, & said - "The Lord gave, & the Lord hath taken away; blessed be the Name of the Lord", tho all his Property had been destroyed, all his Children killed, & he himself was labouring under a painful & noisome Disease. Beware of Loving your Children more than God, who gave you your Children - of idolising them, but forgetting him.[106]

What a splendid passage!

Harriman moved from Eggleston at the beginning of June, 1801, in circumstances which will be explained later. Suffice it to say for the moment that Harriman wrote to Winch on 13 May, 1801, making the following request: "...If a clergyman is wanted

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[103] In a letter to Turner from Barnard Castle dated 18 July, 1801 (DT ref:1 f.186 (4 pp.)), Harriman remarks: "...As the Spec[ms]. were packed up in a Hurry, *& when my Mind was much engaged with some Thing else* [my italics]; I do not recall exactly what I sent, nor the observations I made..." He further remarks: " I not only sent your letter to another:..."

[104] JS ref: 9/A25/f.61.

[105] JS ref: 9/A25/f.101.

[106] JS ref: 9/A25/f.86. Dated 23 August, 1802.

in the Highlands recommend me if you can. I should like much to reside there...[107] D. M. Knight (pers. comm.) emphasises that "because the Scottish Episcopal Church is a separate body from the C. of E.,..., it's not at all likely that Harriman sought a job in the Scottish Highlands - ..." That Harriman meant the Scottish Highlands is not in doubt in my mind: he knew that Winch was in correspondence with John Mackay (1772-1802) of the Royal Botanic Garden, Edinburgh.[108] Mackay had formed a close friendship with George Don (1764-1814) (Roger, 1986:98), renowned for his botanical discoveries in the Scottish Highlands. I regard Harriman's impracticable desire as a further symptom of his distress at having to leave Eggleston in June, 1801.

I now want to demonstrate that Harriman did indeed leave Eggleston at the beginning of June, 1801. Harriman wrote to Winch from Barnard Castle on 21 April, 1801:

> ...I am not in spirit good enough to be able to pay you a visit - I am to quit the curacy of Egleston the beginning of June and I do not know that I shall be able to get another...[109]

He wrote to Dawson Turner on 15 July, 1801, again from Barnard Castle:

> I left Home the Day after I received your Letter of the 15th. of last Month, *and only got back Today* [my italics]...I have only to repeat the last part of my last Letter - That I shou'd have been extremely happy to have seen you here...[110]

However, Harriman wrote to Winch from Barnard Castle on 8 July, 1801.[111] I believe that Harriman put Turner off because he was understandably in poor spirits, and didn't want him to know that he then had no post to go to, that is, he was about to become unemployed. Harriman's letter to Winch actually stated:

> I cannot accept your invitation as I expect to be called everyday to Gainford curacy to which I have been appointed...

William Marks was appointed perpetual curate of Eggleston on 11/13? July, 1801. My scenario is as follows. Harriman wound up his affairs at Eggleston before going away shortly after 15 June, 1801. Perhaps he took any leave owing to him before his

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[107] W1.026.
[108] W1.026. See note 4/108 above. Harriman asks Winch to mention him to Mackay.
[109] W1.022.
[110] DT ref: I f.186 (4 pp.).
[111] W1.031.

period of office at Eggleston actually expired? Therefore, he did actually leave Eggleston at the beginning of June, 1801. No doubt he went home to Maryport, but returned expecting to be called to his new appointment at Gainford anytime. The earliest evidence we have of him actually being at Gainford is his letter to Sowerby written from Gainford and dated 28 August, 1801.[112] It is evident from this letter that he had only recently arrived in Gainford.

Harriman was to remain a curate for the rest of his professional life. He moved to Gainford in County Durham, some seventeen miles down Teesdale from Eggleston, where he stayed from 1801 until 1813.[113] From 1813 to 1815 he was at Long Horsley in Northumberland. In 1815 he returned to County Durham (where he was to stay), to Heighington. In 1818 he moved to Croxdale, from where, in 1821, he then became the perpetual curate [114] of Esh and Satley. He retired in 1827 to Croft on Tees in North Yorkshire, where he died (Fawcett, 1905).[115]

It was whilst he was at Gainford that Harriman gave up botany. William Brunton wrote to Winch on 22 April, 1806:

> ...Mr. Harriman never writes to me. He returned some books of mine lately when he favoured me with a short note and half a dozen specimens of Schoenus monoicus [*K. simpliciuscula*], but not a word of either botany or mineralogy...[116]

Similarly, Rev. James Dalton wrote to Winch on 27 April, 1806:

> ...Do you ever hear from Mr. Harriman? He wrote to me some time since and was so good as to promise me a few mosses which from such a man must prove a treasure...[117]

Dalton further remarked to Winch: "Such a man as Harriman is an acquisition everywhere" [118] and "With such a man as Harriman in your neighbourhood application

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[112] JS ref: 9/A25/f. 77.
[113] Copy of letter from R. Thomkins (?) to E. F. Greenwood dated 29 June, 1966.
[114] In the Church of England the technical name given to a cleric who ministered in a parish to which he had been nominated by the Impropriator and licensed by the Bishop. Impropriation: the assignment or annexation of an ecclesiastical benefice to a lay proprietor or corporation. See Livingstone (1996:393, 257). A perpetual curate, now all called vicars, had a living with tenure (D. M. Knight, pers. comm.).
[115] W6.039. Letter from Dalton to Winch dated 3 September, 1827.
[116] W2.009

to me seems a work of supererogation." [119] Rev. James Dalton (1764-1843) **(pl. 42)** was the Rector of Croft from 1805 to 1843. He was ordained Deacon in 1787 and Priest in 1788. He was a friend of the Hookers, and godfather to Sir Joseph Dalton Hooker. He was also a friend of Dawson Turner who confided to William Borrer that Dalton "being born to affluence...has habits not the most compatible with industry, in short a man used to all the luxuries of a sumptuous table, to a life of perfect ease, and to having fourteen servants and almost as many horses constantly at his command" (Allan, 1967:47). He collected and studied Carices, lichens and mosses and he contributed to *English Botany* and Turner and Dillwyn's *Botanist's Guide through England and Wales.* He discovered *Scheuchzeria palustris* L., new to Britain.

Perhaps it wasn't coincidental that Harriman retired to Croft. Dalton wrote again to Winch on 6 June, 1807:

> ...I am sorry to say that I have had no communication with Mr. Harriman for ages. The correspondence dropped on his part and I did not feel that I could offer anything which might make him wish to resume it. My collection of lichens is far from rich.[120]

In a letter dated 31 January, 1808, Winch informed Turner that "...Harriman has left off all communication,.." [121]

Harriman married Ann Ayre (1773-1862) spinster of Gainford [122] on 19 April, 1808,[123] with no apparent issue.

We know very little of Harriman in the period from his marriage until his death. Only four letters written by him in this period have been found. Two were written to Winch in 1810, the first a reply. In this first he states:

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[117] W2.010
[118] W2.047. Letter from Dalton to Winch dated 23 January, 1807.
[119] W2.055. Letter from Dalton to Winch dated 14 May, 1807.
[120] W2.057
[121] DT ref: 6 f.9.
[122] Ann Ayre came from " ... King's Lynn, in the county of Norfolk " (when?), ref: see note 4/2 above. That James Edward Smith lived in Norwich in the county of Norfolk was no doubt simply a coincidence.
[123] DCRO. Gainford marriage register ref. EP/Gai 7.

Plate 42. The Rev. James Dalton FLS. *Yorkshire Life.*

> ...It will I think be seven years this summer since I was there [on the Teesdale moors] but I should like to visit them with you this summer...I have done nothing in botany these three or four years and, therefore, of course, never hear from Smith, Turner, Sowerby or any other botanists...[124]

In the second, dated December, 1810, he states "...I should be extremely happy to visit Teesdale again with you [125] and I hope I shall next summer...[126] There is no evidence that Harriman visited Upper Teesdale in either 1810 or 1811. It will be remembered that James Backhouse Snr. visited Upper Teesdale in 1810 and 1811. On 26 October, 1812, Harriman replied to a further letter from Winch. In it he points out that "...[I] did not look upon it as anything new *so little was I acquainted with Carices* [my italics] which genus I then considered it..." [127] This is a reference to *Kobresia simpliciuscula* (Wahlenb.) MacKenzie, the false sedge, which Harriman picked up in 1797. This oversight on Harriman's part became almost an obsession with him (see below). He also mentions that "...it is six or seven years since I did anything in botany..." It would appear, therefore, that Harriman did not visit Upper Teesdale in 1810 or 1811.

Dalton very fortuitously permits us a glimpse of Harriman as an old man. On 6 December, 1824, Winch sent the following letter to Smith:

> ...The rare Juncus castaneus I observe has been sent you from this part of the kingdom by my former correspondent Harriman. Does he mention its precise locality? - it has been overlooked by all other botanists...[128]

This is a reference to Smith's *English Flora* (1824 2: 173-174) in which he states under *J. castaneus* Smith, a rush found in Scotland, "In the county of Durham. *Rev. Mr. Harriman.*" Apparently, Winch had no joy with Smith as he then approached Dalton at Croft. Dalton replied on 3 September, 1827:

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[124] Letter from Harriman to Winch dated 29 March, 1810. Ref: W2.099.
[125] Winch visited Upper Teesdale with Harriman in 1799 and 1800 (see below). It is not clear if Harriman is referring to these visits here.
[126] W2.106.
[127] W3.014.
[128] W5.138. This is Winch's draft of his letter.

> ...Harriman now resides here. He is a most worthy old fellow but his botanical memory fails him very [indecipherable] materially. In other respects he is well & I see much of him. He can talk upon botanical subjects still & would give me his whole collection of very ill-preserved plants were I [indecipherable] enough to accept them...[129]

Having established that Harriman was well, Winch wrote to Dalton on the subject again. Dalton replied on 3 November, 1828:

> I have lost no time in consulting our old friend upon the subject of your letter and am sorry to say that he has forgotten everything about the Juncus castaneus. Indeed, his memory & sight have failed so much that I have long ceased attempting to restore him to his long-neglected pursuit of botany...[130]

Winch would not let it go! He wrote to Dalton yet again and he replied on 15 September, 1829:

> ...Harriman never found Juncus castaneus.[131] There is some mistake which his memory will not help him to rectify. You may be sure I would not have suffered him to rest 'til he had given me specimens...[132]

Winch would seem to have been over zealous in preparing his *Flora*. Winch (1831:23) includes the record for *J. castaneus* in his *Flora* with the following comment: " There is a specimen of this very rare plant in the late Sir J. E. Smith's Herbarium, marked as coming from the county of Durham." Graham (1988:239) excludes this record. There are no other records for this species from County Durham.

Harriman died on 3 December, 1831, at Croft. He is buried in the churchyard at Croft, next to his friend, Rev. James Dalton (**pl. 43**). The inscription on Harriman's table monument is long eroded away. However, it read:

> Erected in memory of the Rev. John Harriman, F.L.S., who died December 3rd, 1831, aged 71 years.
> Also of Annie Harriman, widow of the Rev. John Harriman, F.L.S., who died March 14th, 1862, aged 89 years.[133]

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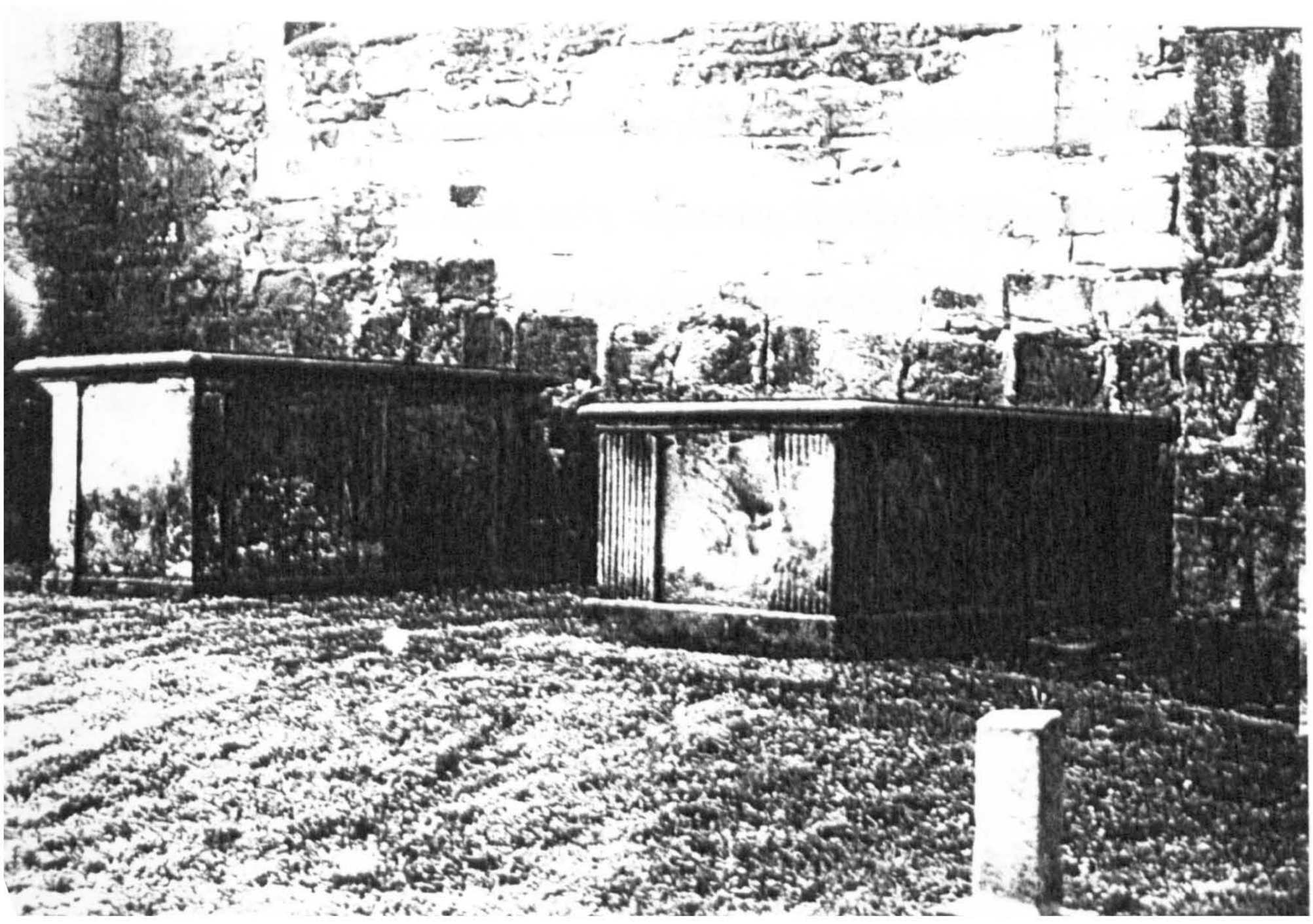
[129] W6.039
[130] W6.090
[131] Harriman requested *J. castaneus*, amongst many other plants recently figured in *English Botany*, from Sowerby in a letter sent from Gainford [not Eggleston in Upper Teesdale] dated 9 April, 1803 (JS ref: 9/A25/f.90). He added it to his *desideratae*. I am in no doubt that the error arose through genuine confusion on Harriman's part.
[132] W6.135.
[133] Durham County Advertiser, 27 October, 1905. Article on *Durham Clergy Lists* by J. W. Fawcett.

Plate 43. The Rev. John Harriman's table monument (on the right) in the churchyard at Croft, North Yorkshire. That on the left is The Rev. James Dalton's.



The value of Harriman's estate did "not amount to the sum of four hundred and fifty pounds,.." [134]

Harriman's herbarium, which he wanted to give to Dalton, has survived purely by chance. A Mr. B.T.W. Stevenson (now deceased) of Southport found it " by some dustbin waiting to be picked up by the binmen in Southport." Thinking it might be of interest, he handed it to a member of staff of the Liverpool Museum. This member of staff was a colleague of E.F.Greenwood (pers. comm.) (now retired).

In the last few years of Harriman's correspondence with Sowerby, which effectively ended in 1807, minerals feature more and more. He left a collection of "six or seven hundred specimens, chiefly crystals." Anne Harriman of Bishop Wearmouth wrote to Winch on 20 April, 1835, requesting his help in selling the collection.[135] Winch replied to the letter, which is obviously written by an educated person, on the day he received it, namely, 25 April, 1835.[136]

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[134] Probate of Harriman's will. The Borthwick Institute of Historical Research, the University of York. Ref. Prerogative Court of York, probate records June 1832.
[135] W8.011.
[136] So Winch annotated the letter.

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[135] W8.011.
[136] So Winch annotated the letter.

CHAPTER 5

EDWARD ROBSON (1763-1813) QUAKER LINEN DRAPER OF DARLINGTON

Like Harriman, but unlike Oliver and Binks, Edward Robson is a recognised figure. He has an entry in the *Dictionary of National Biography* (Boulger, 1897: 62), albeit included in that for his uncle, Stephen Robson (1741-1779) (*q.v.*). I have recently written new, separate entries for both Edward Robson and Stephen Robson for the *New Dictionary of National Biography* (Horsman, in press). Edward was born of Quaker stock on 17 October, 1763, in Darlington, where he was to remain for the rest of his life. A plain and simple education was common amongst Friends at this time (Green, 1917:17). He set up a linen drapery (E. Robson & Co.[1]) in High Row, Darlington (Hetherington, 1987: 1). James Backhouse Snr. (1831, App:78) describes him as:

> .., a much beloved friend and interesting companion; of liberal sentiments; *diffident* [my italics], prudent, and discriminating; of sound religious [Quaker] principle, and of exemplary life and conversation; of superior mental endowments; partial to science generally, to natural history in particular; and as a botanist, attained to considerable eminence, [and of] clear perception and inflexible integrity,..

and Longstaffe (1854:341) as: "...amiable and ... fond of landscape painting, in both oil and water-colours, and used to rise by four o'clock to gratify his taste,.."

It can safely be assumed that Edward took an interest in botany under the influence and encouragement of his Quaker uncle, Stephen Robson, a recognised botanist (Boulger, 1897:62), who also lived in Darlington. *The British Flora* by Stephen Robson was published in 1777, a year after Withering's *Botanical Arrangement*, 1776. It is arranged in accordance with the natural system of Ray, but incorporates

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[1] JS ref: 16/A48/f.88.

the binomial system of nomenclature of Linnaeus. Green (1917:272-273) includes what appears to be the whole of a letter from Stephen Robson to the Rev. Richard Hill Waring (*c.* 1720-1794) dated 15 December, 1778. He states:

> ...Mickleforce [High Force] is a fall in the R. Tees, which seperates [sic] this county from Yorkshire, it was on the Durham side we found the *Potentilla fraticosa* [sic]...

Shortly after he refers to "...My friend Bailey..." in the same context. I think it safe to assume that Stephen Robson visited High Force with Bailey. It is not known when they made their visit, or, if, indeed, they made more than one visit. John Bailey (1750-1819) was born near Bowes on the Tees. He was an engraver and contributed engravings to Hutchinson's *History and Antiquities of The County Palatine of Durham*, 1785-1794. He became a mathematics master at Witton-le-Wear, and then trained as a land surveyor and was land agent to Lord Tankerville at Chillingham in Northumberland. Bailey ordered those parts of *English Botany* already published through Edward.[2] He contributed a single record to Edward's *Plantae Dunelmenses*, namely, "Viola palustris near Witton-le-Were. John Bailey" (page 22). It is evident from his letter to Rev. Waring that Stephen had Lightfoot's *Flora Scotica*. Indeed, he appears to have purchased it shortly after it was published, which was most probably on 22 September, 1777 (Nichols, 1814: **VIII** 737-738; Price, 1968:60).

Edward married Elizabeth Dearman (1770-1852) of Thorne near Doncaster on 4 July, 1788 (Smith,1878:149-150; James Backhouse Snr., 1831:App. 77). They had four children. The family lived in a house called "Green Bank" in Darlington (Bousfield, 1881:47). Elizabeth's sister, Mary, married James Backhouse (1757-1804), the father of James Backhouse Snr. (1794-1869) (Foster, 1894: 34, 37).

Edward's herbarium only came to light again in 1980 (Davis, 1980: 9). For many years it had been wrongly attributed to Edward Backhouse (1808-1979), a Quaker banker of Sunderland. Peter Davis (pers. comm.) had realised that the dates on the

sheets did not tally. He "felt that E. Robson must have been the compiler from the evidence on the sheets." In 1980 Davis first saw the manuscript *Darlington Natural History Society, 1793*, which is in the possession of the Darlington & Teesdale Naturalists' Field Club and is partly written by Robson. Davis immediately recognised Robson's handwriting as being that on the "Edward Backhouse" herbarium sheets, which confirmed that the herbarium is, indeed, Edward Robson's.

In the Friends' Library in London is Robson's Botanical Autograph Album which is dated 1810.[3] Edward cut out seventy-four signatures from his botanical correspondence and stuck them in this album **(pl. 44)**. That Robson was one of the leading botanists of his day, certainly in the north of England, is clearly demonstrated by the following table of the signatures in his Album. An asterisk indicates initial(s) only in the album. [4]

John Bradbury FLS
Rev. James Dalton FLS
John Leonard Knapp * FLS Medic
William Curtis * FLS (Apothecary)
Robert Townson MD
Nathaniel John Winch * FLS/ALS
William Brunton * FLS
James Bolton
George Don * ALS
James Donn FLS
Dawson Turner FLS FRS
Revd. William Bingley FLS
W. Fallowfield Druggist
Lewis Weston Dillwyn FLS FRS
Robert Teesdale FLS
Joseph Cockfield

John Dalton FRS
John Gough *
Isaac Hall
James Sowerby FLS
James Edward Smith * PLS FRS
Rev. Richard Hill Waring * FRS
George Allan
William Hutchinson (of Barnard Castle)
John Bailey
Stephen Robson
William Travis FLS Surgeon
Richard Anthony Salisbury * FLS FRS
Phoebe Dearman
Ollive Sims Retail chemist
Robert Willan MD FRS
Luke Howard FRS Wholesale and retail chemist

James Dickson FLS
Thomas Flintoff * Surgeon
Rev. John Harriman * FLS
Robert Harrison
John Hull FLS MD
Adam Neale MD FLS
John Shepherd
George Caley
Stephen Cleasby * Surgeon Apothecary

Rev. Thomas Zouch FLS
James Jenkinson
Rev. John Fenwick
James Janson (I' Anson) *
Thomas Marsham FLS
William Manby
Edward Alexander
Isaac Morse? Junr.
Alex M°Leay FLS FRS

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[2] Letter from Robson to Sowerby dated 3 November, 1801. JS ref: 16/A48/f.90.
[3] Ref. Ms BOX T_1/14.
[4] Sources: Desmond (1977), Britten and Boulger (1931), *Dictionary of National Biography*, Wallis and Wallis (1988) etc.

Plate 44 (three sheets). Some signatures from two pages of Edward Robson's botanical autograph album, 1810. Note in particular those of Stephen Cleasby (no. 47), William Oliver (no. 49), William Weighell (no. 51) and William Hutchinson of Eggleston (no. 67). The Library of the Religious Society of Friends in Britain, London. Note also William Hutchinson of Barnard Castle's signature. *Archaeologia Aeliana.*

A. Neale 45

John Hufford 46

George Calen

Yours truly

Blenky

Dr Blenky [illegible]

48 49

[illegible]

Yours very respectfully

Wm C Burns

51

Wm Wright

For Dr
H Curtis

Yours Govd. Ver.
W. Hutchinson
of Estevan

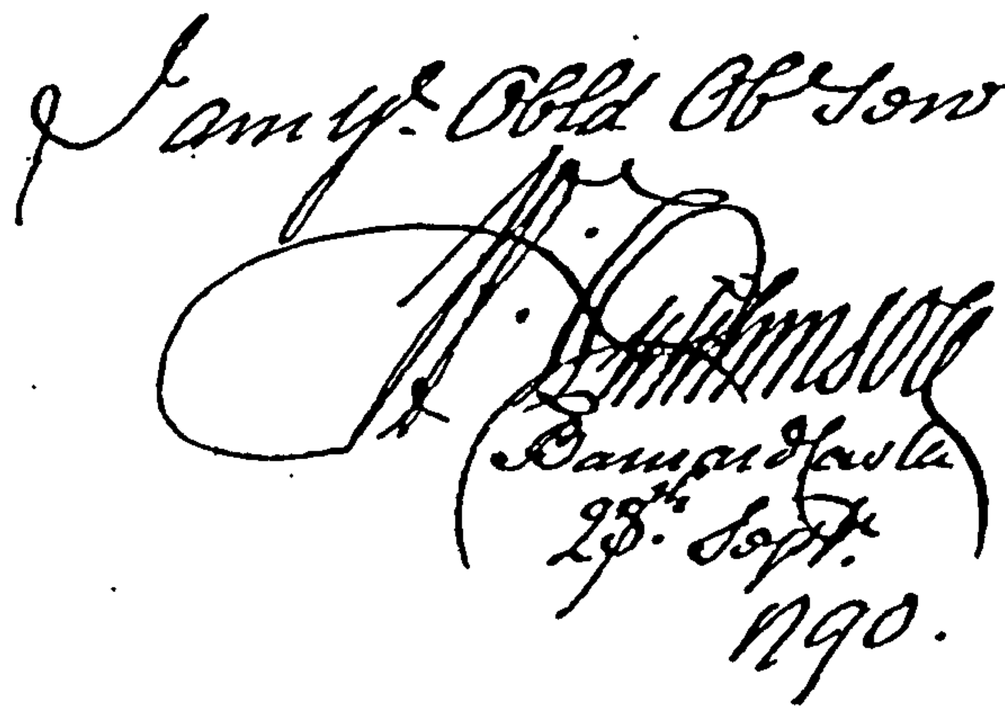
Barrister

D. Norma

Ex

C. Hollis)

Return Exchequer
formerly Treasurer



FACSIMILE OF SIGNATURE OF WILLIAM HUTCHINSON.

Richard Wharton
William Oliver * Surgeon Apothecary
William Burn
William Weighell ALS

William Withering FLS FRS MD
Jonathan Stokes ALS MD
Robert Pierson
Rev. Richard Relhan FLS FRS
William Hustler
Rev. Jelinger Symons FLS
Rev. Thomas C. Rudston
Lord Webb Seymour

J. Jackson (of Ketley)
William Hutchinson (of Eggleston) *
William Backhouse
? Jones ("formerly surgeon in Birmingham ")
Joseph Woods Jnr. FLS
Jean Walker ? ("7mo 1793")
Thomas Joy
T. F. Scarth
Rev. Samuel Swire
Thomas Brady
Gilpin Gorst
John Cade

It is hardly surprising that Baker (1903:78) describes Robson as:

> ...one of the most active English botanists of his generation.

That Robson was fully committed to Linnaean botany is illustrated by his manuscript: *Supplement to the British Flora; or a Catalogue of the British Plants, (in the Linnaean System) with the Characters, Places of growth etc. of the species not contained in that work*, dated 1790.[5] This manuscript is clearly a supplement to his Uncle Stephen Robson's *The British Flora*, 1777.[6] Robson has abandoned Ray's natural system of classification employed by Stephen Robson in favour of Linnaeus's "Sexual System ". The mycologist James Bolton (1791:170) says of his friend Robson:

> Mr. ROBSON has been long engaged in drawing up a *Flora Britanica* [sic], according to the Linnaean system; and, in several other respects, on a more eligible plan than any that has appeared hitherto.

I am in no doubt that this is a reference to Edward's *Supplement*, an opinion which I note is shared by Henrey (1975, II:135).

On 21 December, 1790, Edward was elected an Associate of the Linnean Society of London. His certificate reads:

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[5] In the Botany Department Library at the Natural History Museum , London. Ref. Acc. no: 321341.
[6] Robson's " elaborately annotated copy of his Uncle Stephen Robson's *British Flora*" is in the possession of a Mrs. Wallis (Graham, 1988:492).

> Edward Robson of Darlington *having expressed a wish to become an Associate of the Linnean Society* [my italics] we the underwritten knowing him to be a practical botanist recommend him to be elected accordingly.[7]

Edward was proposed by James Dickson and Rev. Samuel Goodenough (1743-1827), both founder members of the Linnean Society.

On 19 January, 1792, Edward replied to a letter from Sowerby which apparently asked for specimens for him to draw for his *English Fungi* and *English Botany*. He wrote:

> ...Before I attempt to send any recent Specimens for English Botany I must be informed of a proper mode of conveyance, as I consider it a difficulty to send specimens 250 miles in a fresh state without injury...[8]

The first number of *English Botany* "was probably issued in early 1791" (Henrey, 1975: **III** 119). Thus, Robson was one of the first contributors to *English Botany*. Sowerby replied to Robson on 21 May, 1792 (explaining that he "would have wrote sooner but have been ill and did not know what I should be able to draw of the plants you sent"). [9] He comments on these plants from the point of view of drawing them. Of *Pinguicula vulgaris* L. he states: "Shall be glad to figure but must see a specimen more advanced." In the letterpress for *P. vulgaris* in *English Botany* Smith (in Sowerby, **1790 I**: *t.* 70 dated November, **1792**) states:

> ...We are obliged for this specimen to Mr. Robson of Darlington, *a very assiduous and accurate botanist* [my italics]...

Smith (1828b: **II** 129) includes a record from Edward for *Galanthus nivalis* L. (the snowdrop) thus: "On the banks of the Tees, about Blackwell and Conniscliffe, certainly wild." Smith comments further:

> So common in gardens, that it is supposed to have escaped from thence; but many persons esteem it a native. Ray and Dillenius indeed omitted the Snowdrop in their catalogues; but the question how far they were right or wrong can scarcely be determined, and the late Mr. Robson's opinion is one of the most weighty against them.

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[7] Linnean Society Archives: Certificates of Recommendation.
[8] JS ref: 16/A48/f.77.
[9] ER ref: Add. MS. 8190.

A letter from Sowerby to Robson dated 3 August, 1798, gives a flavour of contemporary botanical exchange. On 9 July, 1798, Edward wrote to Sowerby thus:

> A Friend of mine being just setting off for Town, I embrace so favourable an opportunity of finding a few things as at foot - Some of these are rare and fine Specimens...[10]

Sowerby replied on 3 August, 1798:

Augst. 3^{d}. 1798 your parcel near <u>a month coming</u>

My Dear Sir

I hope e'er this you will have received a parcell [sic], and find everything safe, I was extreemly [sic] disapointed [sic] on opening one, from you last night dated the 9th of July, it was a <u>meen [sic] chaos</u> of prutridity [sic] - give me leave to advise you when you send to me in future, if you send in a tin box not to leave to the casualty of a friend (this putrid stuff cost me a shilling) which common reason would have said (knowing how long it had been on the road) was of no value, it was a pity they knew no better, the easier way of sending to me is to put the things in a deal box (ever so rough) made of six pieces of boards value three or 4^{d} * and if plants,** put nothing <u>wetter</u> than fresh gathered moss in the box, and that gathered in dry weather lay the plants between in layers as between papers or cotton and if they dry as they come they may make specimens, but if they become damper they are sure to be putrid and of no use. I like moss best, it may afford me a shell or two etc, I had Ribes <u>montana</u> come wonderfully well the other day in this manner
I put in a small desiderata in my last if not too late you might add <u>Iris foetida</u> etc. <u>Vicia benghalensis,</u> which you say you gathered on Sunderland ballast hills. surely such a place must afford many subjects of nat^{l} history - <u>Ribes spicatum</u> wild, I shall be glad of such as was in the box - I do not wish to trouble you for <u>Samolus valerandi</u> I do not particularly want it, nor <u>Butomus umbel</u>. we have plenty near us, <u>Hyoscyamus albus</u> is a <u>desiderable</u> plant - I hope to see from you soon to say that you have received <u>E Fungi Martyn</u>[11] & <u>Lin.Trans</u>. etc I am dear sir

Yours most gratefully
J^{s}. Sowerby
excuse haste.

* The expense of returning a tin box seldom costs less than a shilling - porterage, Carriage, or somehow.
**Things wanting more water should be in bottles

The following notice appeared in the *Gentleman's Magazine* for November, 1793 p. 1035 [12]:

> A society has lately been instituted at Darlington, for the promotion of the knowledge of natural history, antiquities, etc.; which, from the public characters of several of its members, we have every reason to believe will flourish. It is intended to consist of corresponding as well as ordinary members. George Allan, esq., F.A.S. has opened his museum for the use of the society.

It will be remembered that Robson was the first treasurer of the society and William Hutchinson Esq. of Barnard Castle the first secretary. On 22 May, 1794, Robson

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[10] JS ref: 16/A48/f.82.
[11] Thomas Martyn's edition of Philip Miller's *Gardener's Dictionary*, 1795-1807.
[12] See note 4/19 above.

presented his manuscript *Plantae Dunelmenses* to the society. His Darlington Catalogue, privately printed for circulation with his current *Plantae Desideratae*, was based on *Plantae Dunelmenses*. In 1798 the pattern was repeated: *Plantae rariores agro Dunelmensi indigenae*, compiled by Edward Robson and dated 1 May, 1798, was circulated with his current *Plantae Desideratae*. It was my comparison of *Plantae rariores*...with Edward Robson's *Plantae Dunelmenses* (I had not yet discovered his Darlington Catalogue) that provided the foundation of my research. The background to these catalogues is as follows.

On 7 February, 1792, a paper by Robert Teesdale (*c.* 1740-1804) was read at the Linnean Society of London. It was entitled:

Plantae Eboracenses; or, A Catalogue of the more rare Plants which grow wild in the Neighbourhood of Castle Howard in the North Riding of Yorkshire; disposed according to the Linnean System.

Teesdale was a founder member of the Linnean Society. He was a gardener at Castle Howard in North Yorkshire, as was his father, Robert Teesdale (?-1773), before him. He was also a junior partner in Minier, Mason and Teesdale, seedsmen, 60 Strand, London, in 1775 (Desmond,1977:602). By 1792, Teesdale had gone to live in London (Baker, 1885b: 198). Teesdale and Robson corresponded.[13] Teesdale's *Plantae Eboracenses* was published in the *Transactions of the Linnean Society* in 1794 (**II**: 103-125). The actual date of publication was 1 May, 1794 (Stafleu and Cowan, 1986 **VI**: 199). The catalogue comprises vascular plants (including ferns), mosses, liverworts, lichens, algae and fungi.

I now want to demonstrate that Edward's *Plantae Dunelmenses*, dated 22 May, 1794, was modelled on Teesdale's *Plantae Eboracenses*, read on 7 February, 1792, and published on 1 May, 1794. I want first to deal with the question of the dates 1

and 22 May, 1794. I think it highly unlikely that Edward received the second volume of the *Transactions of the Linnean Society*, published on 1 May, 1794, by 22 May, 1794. I am in no doubt, as will become evident, that Edward saw the manuscript of *Plantae Eboracenses*. Teesdale may have loaned him the original or sent him a transcript. Alternatively, Edward may have seen it either at Castle Howard or in London.[14] It is not known when Teesdale actually left Castle Howard, or when he completed his *Plantae Eboracenses*. I believe that Edward had completed his *Plantae Dunelmenses* before 22 May, 1794, but, out of courtesy to Teesdale, he did not present it until he knew that *Plantae Eboracenses* had been published.

I want to compare Robson's introduction to his *Plantae Dunelmenses* with that of Teesdale's to his *Plantae Eboracenses*. Robson's is addressed "To the Society established at Darlington for the promotion of the knowledge of Natural History etc." The heading is:

> Plantae Dunelmenses; or
> A Catalogue of the more rare Plants which grow wild in the county of Durham, arranged according to the Linnean System.

And the introduction reads:

> The following list contains the names and places of growth of the more rare Plants which I have gathered in this County, a very few excepted, where I have quoted my authority for inserting them.
> *From the extent of the county and the great variety of soil and situation which it affords, I am sensible a great many may be added; and I hope this first essay towards a compleat Catalogue of its vegetable productions will be followed by communications from other Members of the Society* [my italics].
> The Plants which are common in every part of our Island are not inserted; the particular Habitats of such as are to be found in most parts of the country are omitted, and only added to those which are most rare.
>
> Edward Robson.
> Darlington 22/5Mo 1794 [15]

Plate 45 shows page 20 of the Catalogue.

Teesdale's introduction to his *Plantae Eboracenses* reads as follows:

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[13] See note 5/3 above.
[14] We know that Edward visited London in the spring of 1793. *Darlington Natural History Society, 1793* p. 12.
[15] *Darlington Natural History Society, 1793* p. 14. See also pl. 32.

Plate 45. Page 20 of Edward Robson's *Plantae Dunelmenses*, dated 22 May, 1794.
Darlington & Teesdale Naturalists' Field Club.

Icosandria Polygynia

Potentilla fruticosa ..... on the rock at High-force, plentifully
Geum rivale ..... in moist pastures and woods, common
var. flore luteo & flor. pleno } not unfrequent.
Comarum palustre .... in bogs not uncommon.

Polyandria Monogynia.

Cistus Helianthemum ... in pastures of a calcareous soil, but not common. By the road between Cornischiffe & Piersbridge.
Nymphaea lutea ..... in the Skern near Darlington, plentifully.

Triygynia

Aquilegia vulgaris ... in Baydales near Darlington.

Polygynia.

Thalictrum minus ... on the sea shore between Seaton & Hartlepool.
Ranunculus Lingua. in moist places. Hell Kelles near D.
Trollius europaeus ... in marshes, common.
Helleborus viridis ... near Piersbridge, but is scarce

Didynamia Gymnospermia

Vegeta Catania ..... near Cornischiffe toll-bar.
Verbena officinalis ... at Seaton & Bishopton.

Angiospermia

Melampyrum pratense. in Castle-Eden-deane, abundantly.
sylvaticum. in the woods about Barnardcastle.
Lathraea squamaria ... at the roots of trees in a wood near Gainford.
Orobanche major. ... in Raby park.

Tetradynamia Siliculosa.

Lepidium latifolium .... near Seaton, plentifully.
Cochlearia officinalis .. on Hartlepool moor.

Siliquosa

Cheiranthus Cheiri .... on Raby castle.
Cardamine amara ... on the brinks of rivers.

During the time I *resided* [my italics] at Castle Howard, in the county of York, some of my leisure hours were employed in herborizing: my business not admitting of long excursions, it enabled me to take the more pains in the collecting of the plants of my own neighbourhood. The woods about Castle Howard are extensive, and the bogs near Terrington produce many valuable acquisitions to the curious investigator.
The downs called the Wolds are likewise productive of some good plants.
I seldom extended my rides, or walks, upon those botanical excursions, more than ten or fifteen miles from home; and upon summing up the plants that I had observed, and collected, they amounted to nine hundred and sixty. This I presume, will be thought a great number to be found, in so small a space of country, by one collector; as the learned Dr. Martyn [16] tells us, in his Plantae Cantabrigiensis [1763], that with the indefatigable labours of Mr. Ray, Mr. Lyons,[17] himself, and doubtless many other residents of the University, they have made their catalogue amount to eight hundred and twenty-nine only.
In the following list, most of the plants which are common in every part of our island are omitted, excepting in the Cryptogamia class.
Notwithstanding I have found such a number, I have no doubt but, upon a more nice investigation into the minutiae, with such accuracy and knowledge as my friend Mr. [James] Dickson possesses, many more plants will be discovered.
To the more rare ones I have added their *habitats*, by which means the travelling botanist may the more readily find the plant he may wish to add to his Herbarium.

Plate 46 illustrates the layout of the Catalogue. Robson's Catalogue also comprises vascular plants (including ferns), mosses, algae [18] (*Jungermannia, Marchantia, Lichen, Fucus, Conserva and Byssus*), and fungi.

Thus, I am in no doubt that Robson's *Plantae Dunelmenses* is modelled on Teesdale's *Plantae Eboracenses*. Robson's Catalogue was apparently prepared in similarly confined circumstances to that of Teesdale's. Most of the plants in Robson's Catalogue were collected in the neighbourhood of Darlington. It is interesting to note that in Edward's letter to Sowerby of 19 January, 1792, he states;

> …I have a tolerable Collection of dried plants, but having got what this Neig[d]. produces I can now only increase it by the assistance of my friends.[19]

Thus, by the end of the 1791 flowering season, or perhaps earlier, Robson was in a position to prepare his *Plantae Dunelmenses*.

Before considering *Plantae Dunelmenses* in more detail, I want to put it and *Plantae Eboracenses* into perspective. *Plantae Dunelmenses*, which William Hutchinson of Barnard Castle published in his *History and Antiquities of the County*

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[16] Rev. Thomas Martyn (1735-1825).
[17] Israel Lyons (1739-1775). Author of *Fasciculus plantarum circa Cantabrigiam nascentium, quae post Rayum observatae fuere*, 1763.
[18] The contemporary genera.

Plate 46. Part of Robert Teesdale's *Plantae Eboracenses*, published on 1 May, 1794.

Enneandria Hexagynia.

Butomus umbellatus - in the river Derwent, at Howſham.

Decandria Monogynia.

Pyrola rotundifolia - in woods at Helmſley.

Digynia.

Chryſoſplenium oppoſitifolium - in Mowthorpe dale, and in moiſt ſhady lanes and woods.
alternifolium - near Hornby, but is very rare.
Scleranthus annuus - in Bulmer field, but rare.
Dianthus deltoides - about Scampſton.

Trigynia.

Stellaria nemorum - by rivulets, and ſhady moiſt woods.
Arenaria tenuifolia - upon Barton heights, near C. Howard.

Pentagynia.

Spergula nodoſa - - upon moiſt heaths.

Icoſandria Polygynia.

Rubus idæus - - in the woods at Caſtle Howard.
ſaxatilis - - in ſtony woods, but rare.
Potentilla argentea - } in rocky woods, at Caſtle Howard and
verna - } Hovingham.
Geum rivale - - in moſt woods, common.
Comarum paluſtre - in Terrington car.

Polyandria Monogynia.

Actæa ſpicata - - at Hilderſley, and in Hovingham lanes.
Papaver hybridum, Argemone, dubium } in Malton corn fields.
Nymphæa alba - - near Sheriff Hutton, and in the river Foſs.

Hexagynia.

Stratiotes aloides - - I planted this in the lake at Caſtle Howard, where it has increaſed ſo much that one can hardly get a drag net through it.

Polygynia.

Ranunculus Lingua - in Terrington car.
parviflorus in Malton fields.
Trollius europæus. - in Hovingham woods, near Holley-hill.
Helleborus viridis - in the hedges near Stonegrave, but is ſcarce.

Didynamia Gymnoſpermia.

Mentha piperita - by the ſide of a rivulet at Lutton upon the wolds.
Galeopſis tetrahit - amongſt the corn, frequent.
Scutellaria minor - in Terrington car.

Angioſpermia.

Orobanche major - in Malton field.
Lathræa ſquamaria - in the woods near Kirkham, at the foot of ſome rocks.

Tetradynamia Siliculoſa.

Iberis nudicaulis - - in Bulmer fields.

Siliquoſa.

Turritis glabra - - in the lanes near Thirſk.
Cardamine amara - - by the river Derwent at Kirkham, and in many other places.

Monadelphia Decandria.

Geranium ſanguineum in Malton fields.

Polyandria.

Palatine of Durham, 1794 (pp. 507-518), was the first flora of County Durham. Henrey (1975:73) points out that only one English county had had floras published prior to 1794, namely, and not unsurprisingly, Cambridgeshire. John Ray's *Catalogus plantarum circa Cantabrigiam nascentium*, 1660, was the first local English flora. In 1763 Thomas Martyn's *Plantae Cantabrigienses* appeared, to be followed in the same year by Israel Lyons's *Fasciculus plantarum circa Cantabrigiam nascentium*, ...and in 1785 by Rev. Richard Relhan's *Flora Cantabrigiensis*. James Bolton made the drawing's for this work (Henrey, 1975:58).

In Robson's *Supplement to the British Flora*, 1790, there are 119 records for County Durham alone, many from the Darlington area (P. S. Davis, pers. comm.). Robson would have had no difficulty, therefore, preparing his *Plantae Dunelmenses*. Equally, he would have had no difficulty preparing a list of plant duplicates he had available for exchange, namely, his *Catalogus Plantarum rariarum* [sic] *circa Darlington sponte nascentium* (Catalogue of rarer wild plants around Darlington) (Darlington Catalogue), from his *Plantae Dunelmenses* and herbarium. I discovered Robson's Darlington Catalogue in the Sowerby Correspondence in the General Library of the Natural History Museum, London, where it had been totally overlooked. I subsequently came across the following letter from Jelinger Symons to Winch dated 17 October, 1805:

> ...when I conceived the plan of a Flora Dunelmenses I formed as a preparatory step (and the only one indeed which I shall now take) a list of such plants as I could find authority to consider natives of this county. In making this, I, of course, inserted all which are contained in Mr. R.'s [Edward Robson's] list of plants in the vicinity of Darlington, his County list and the list inserted in Hutchinson's History...[20]

What is the date of the Darlington Catalogue? **Plate 35** demonstrates how the Darlington Catalogue, on the reverse of Robson's *Catalogus Plantarum britannicarum quae sunt a me desideratae* (Catalogue of British plants desired by

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[19] JS ref: 16/A48/f.77.

me), is part of Robson's letter to Sowerby dated 1 November, 1795. In his letter of 1 November, 1795, Edward remarks:

> ...It is near one year & a half since I sent thee my List of **desideratae** [my emphasis]- thou will observe - *I have been enabled by the kindness of my Friends to cross many out* [my italics] - ...[21]

Thus, Edward sent Sowerby his Darlington Catalogue in or around May, 1794. This is born out by Edward having deleted *Chelidonium hybridum* from his *desideratae* and there being a specimen in his herbarium noted "Jas. Sowerby 6/1794". There can be little doubt that, having completed his *Plantae Dunelmenses* by 22 May, 1794, Edward then quickly prepared both his Darlington Catalogue and his *Catalogus Plantarum britannicarum*... and sent them both to be privately printed. Edward would be anxious that all this work would produce results as soon as possible, namely in the 1794 field season. He would, therefore, want these two lists out as soon as possible after 22 May, 1794, which was late for the 1794 season. I think the Darlington Catalogue can safely be dated late May or early June, 1794. As will be discussed in detail later, Edward sent Sowerby *Plantae rariores*...and *Plantae Desideratae* on 12 May, 1798,[22] in the same way as he had previously sent him his Darlington Catalogue and his *Catalogus Plantarum britannicarum*...However, he dated his *Plantae Desideratae* 1 May, 1798 **(pl. 3)**. In my opinion it is, therefore, proper to date his *Plantae rariores*... 1 May, 1798, and his Darlington Catalogue 1 June, 1794. The Darlington Catalogue and *Plantae rariores*... were clearly intended as bait. A botanical correspondent would know from them if Edward could supply him with any of his *desideratae*. If he could, the correspondent would know that he was expected to send Edward one or more of his *desideratae*, in exchange for his own. It would be extremely brazen to ask for a duplicate(s) without offering any in exchange, although it certainly did happen. I think Quakerism rather than

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[20] W1.239.
[21] JS ref: 16/A48/f.78.

commercialism ruled Edward's head in this matter. The only other example of this approach that I have come across is that employed by Harriman and Oliver (jointly), which will be discussed later. However, they were undoubtedly influenced by Robson. Harriman remarked in a letter to Winch dated 2 March, 1801:

> ...Not one of my correspondents has a list of the plants of his neighbourhood. If I ask for any, the answer generally is I will thank you to send me specimens of as many of your rare plants as you can.[23]

We know this approach worked for Edward. We owe *Plantae Dunelmenses,* the Darlington Catalogue and *Plantae rariores...* to Edward having been so well organised.

In terms of botanical exchange, the earliest privately printed plant lists that I have come across in this study are Robson's of 1 June, 1794. Robson may have decided to have them printed because he knew George Allan Esq. of Blackwell Grange, Darlington, who had a private printing press, the Grange Press, which he used to print a wide assortment of documents, including "little performances for his friends" (Allan, 1829:80).

It is obvious from the third edition of Withering's *An Arrangement of British Plants,* 1796, that Withering was familiar with Edward's *Plantae Dunelmenses.* Robson and Withering corresponded.[24]

There are no records from Upper Teesdale in Edward's *Supplement* of 1790. However, that Edward visited Upper Teesdale in the early 1790's is evident from his *Plantae Dunelmenses,* 1794. But, the records suggest that he had only made a single visit: probably a round trip in a day to High Force from Barnard Castle, as John Byng did in 1792 (and his Uncle Stephen Robson with John Bailey?). Edward recorded in his *Plantae Dunelmenses Galium boreale* L. ".., on the rock at High-force in

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[22] See note 4/27 above.
[23] W1.020.
[24] ER ref: Add. MS 8190.

Teesdale, plentifully", *Narthecium ossifragum* (L.) Hudson "near Middleton in Teesdale", *Potentilla fruticosa* L. "on the rocks at High-force, plentifully", and six lichens: "Lichen late virens. Lightfoot, glomuliferus. Lightf., Vespertilio. Lightf., perlatus, pulmonarius, scrobiculatus. Scopoli. on trees in woods by the river Tees about High-force in Teesdale, the first is scarce." *P. fruticosa* and *G. boreale* are 'Teesdale rarities'. Both were first discovered in Upper Teesdale by Rev. Ralph Johnson (1629-1695) of Brignall near Barnard Castle (Horsman, 1995:163-164). That Robson was unfamiliar with the alpine, west side of County Durham is clear from the few other records he includes in *Plantae Dunelmenses* for this area. His only other point of reference is "west of Bishop's [sic] Auckland."

There is a second contribution from Edward in *Darlington Natural History Society, 1793*. It is a description of his *Ribes spicatum* Robson, the downy currant, and it follows *Plantae Dunelmenses.* He presented a description "To the Society for the Promotion of the knowledge of Natural History etc. at Darlington" on 10 March, 1794, hoping it would " be acceptable to *such Members of the Society as are Botanists* [my italics]."

Edward states in his presentation of 10 March, 1794:

> The Specimen from whence the Figure was made [by Sowerby] as also the dried ones were taken [was] from a Tree which was brought from the neighbourhood of Richmond in Yorkshire some years ago to my late Uncle Stephen Robson who planted it in his Garden where it remained for several years...

Stephen Robson died in 1779. Why did Robson not take it up before 1793? It seems clear that the impetus for his burst of activity in 1794 was the formation of the Darlington Natural History Society in 1793. William Backhouse of Darlington's letter to Winch of 25 July, 1808, will be recalled. In it he states: "...I should be much keener of the study of botany had I any assistance but for the last eighteen months I

have not had an individual to accompany me in my botanical excursions..." [25]

However, we now know that there were botanists in the Darlington Natural History Society in 1794.[26] It is not known how long the Society remained in existence (Hetherington, 1987:3). It was apparently still in existence in June, 1796.[27] However, the Society established at Darlington for the promotion of the knowledge of Natural History etc. was influential, if only fortuitously, in the botanical discovery of Upper Teesdale. The foundations for *Plantae rariores...*,1798, compiled by Edward Robson, which includes so many Teesdale rarities, were laid within the Society's syllabus. It will also be remembered that it was through Robson's *Catalogus Plantarum britannicarum quae sunt a me desideratae* that Harriman came into contact with him.

It is interesting to note that the first meeting of the Newcastle Literary and Philosophical Society was held on 7 March, 1793 (Watson, 1897: 45). That of the Darlington Society was apparently held later that same year, in November.[28] Was there a connection? It was at the request and expense of this body that Winch, Thornhill and Waugh prepared *The Botanist's Guide*, 1805, 1807 (Turner & Dillwyn, 1805:239-340).[29] In 1802 the Newcastle Literary and Philosophical Society launched the New Institution " for Public Lectures on Natural Philosophy " (Turner, [1802]), part of an educational movement which began to make its mark around this time (D. M. Knight, pers, comm.). Work on *The Botanist's Guide* commenced in 1802,[30] as

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[25] W2.077.
[26] *Darlington Natural History Society, 1793* p.11.
[27] Letter from Edward to Sowerby dated 7 June, 1796. Ref: JS 16/A48/f.85. Edward thanks Sowerby for a copy of "his" *Specimen of the Botany of New Holland*, 1793-1795, in parts, text by Smith, figures by Sowerby. Sowerby had presented a part of this work to the Society. He has offered another part to the Society. It is just possible that the "Society" is the Darlington Book Society, but I think not. It is very frustrating not knowing what Edward had told Sowerby about the Darlington Natural History Society.
[28] The notice in the *Gentleman's Magazine* for November, 1793, states that the "society has *lately* [my italics] been instituted..." See note 4/19 above.
[29] W1.218. Letter from Harriman to Winch dated 17 April, 1805.
[30] Letter from Harriman to Winch dated 31 May, 1802. Ref: W1. 052.

did work on a herbarium for the Society. [31] Perhaps there was a link? The first botany lectures were delivered in 1807 (Watson, 1897: 339), the year in which the second and final volume of *The Botanist's Guide* appeared. However, the publication of what proved to be the final volume of Smith's *Flora Britannica* in 1804 may have had a bearing on the date of publication of the first volume of *The Botanist's Guide* in 1805.[32] Harriman was made an honorary member of the Newcastle Lit. and Phil.[33]

Robson's particular role in the botanical discovery and floristic recognition of Upper Teesdale will be dealt with in a later chapter.

His altruism is illustrated as follows. He replied to a letter from Winch on 3 February, 1802, thus:

> I received thy favour in course and shall be very glad if I have it in my power to lend my assistance towards forming an herbarium for your [Newcastle] Literary and Philosophical Society either by the communication of specimens or habitats. Of the latter, would you wish to have [indecipherable] of all the Durham plants which I have seen growing in the County or only those in the neighbourhood of Darlington? [34]

On 31 May, 1802, Harriman replied to Winch:

> With regard to your request that I would draw up a catalogue of our more rare plants [35] I beg leave to say I could wish to defer it till the winter when it would not interfere with my botanical excursions. You should beg Mr. Robson's assistance... [36]

Winch had clearly commenced *The Botanist's Guide*. He did indeed beg Robson's assistance. Edward replied to him on 23 March, 1803:

> I rec'd. thy favour in course and am much obliged for the specimens which are indeed very acceptable. I purposed sending the habitats of our rare plants before now but have been unexpectedly much engaged from home and find I must request [!] a little longer time to do it in for which I will take the earliest opportunity." [37]

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[31] Letter from Robson to Winch dated 2 March, 1802. Ref: W1. 044.
[32] Letter from Harriman to Winch dated 2 March, 1801. Ref: W1. 020.
[33] W1.208. LTR 13 4 1805.
[34] W1.044.
[35] W1.020. Harriman states: "...You have a list of the rarer plants of this neighbourhood given you by Mr. Headlam." This would be Oliver and Harriman's list (see below). Headlam was a mutual friend of both Winch and Harriman. Presumably, this list did not give habitats, which is what Winch required for *The Botanist's Guide*.
[36] W1.052.
[37] W1.100.

Winch received Robson's list on 6 May, 1803.[38] That Winch and Robson had little contact is evident from the small number of Robson letters in the Winch Correspondence. Winch apparently first made contact with Robson in late 1800. Edward replied to a letter from Winch on 26 November, 1800, thus:

> ...I now send a list of my desiderata in English flowering plants [39] (except some new ones in Smith Fl. Brit. [40]) and need not add any of them will be acceptable. When thou hast furnished me with a longer catalogue of thy desiderata from the Durham Catalogue[41] I will send thee a pacquet with pleasure." [42]

It would appear that Winch already had a copy of the Durham Catalogue (*Plantae rariores...*). This may well have been that referred to in Harriman's letter to Winch dated 2 March, 1801, referred to above. This in turn may be the combined copy of *Plantae rariores...* and Oliver and Harriman's printed *Plantae Desideratae* (see below), annotated by Harriman and noted by Winch: "Mr. Harriman's List - 1800" in the Winch correspondence.[43] This annotated *Plantae rariores...* will be discussed in detail later.

Robson also contributed records to Turner and Dillwyn's *The Botanist's Guide through England and Wales*, 1805, for the counties of Durham, Yorkshire, Cumberland, Westmorland, Northumberland and Lancashire. On page 241 of this work there is a reference in a footnote to:

> ...Mr. Robson in his Catalogue of "Plantae rariores agro Dunelmensi indigenae," printed some years since for the use of his friends,..

This Catalogue has wrongly been attributed in the past to Robson's Uncle Stephen Robson (Davis & Graham, 1981; Horsman & Davis, 1990).It is interesting to note that Henrey (1975, II:136) was unable to trace a copy of this Catalogue.

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[38] W1.190. Winch has annotated Edward's list "Received from E. Robson May 6th 1803."
[39] *Plantae Desideratae* dated 1 May, 1798, updated by annotations.
[40] *Flora Britannica*, James Edward Smith, 1800-1804.
[41] *Plantae rariores agro Dunelmensi indigenae.*
[42] W1.013.
[43] W1.191, W1.192.

Edward was keenly interested in fungi. In a letter to Sowerby dated 3 November, 1795, he asked if he would send him as many numbers of his *Coloured figures of English Fungi* as were ready. [44] He added:

> ...I fancy I may be able to send something in this way worth thy acceptance - have paid some attention to this Class of Plants & am anxious to see in what plan it is executed...[45]

Many of his records for fungi made near Darlington appear in the second volume of *The Botanist's Guide*, 1807. He contributed to the Supplement to *An history of fungusses, growing about Halifax*, 1791, by James Bolton, the earliest British monograph on fungi (Henrey, 1975 II:136). On page 170 of this work Bolton says of Robson:

> ...And specimens of the same have been sent me from *Darlington*, by my ingenuous friend Mr. EDWARD ROBSON. All the specimens I have received from *Darlington*, or the county of *Durham*, as mentioned in this appendix [supplement], have been sent me by that gentleman, collected by himself, or by Mr. THOMAS FLINTOFF, Surgeon, of *Knoyton*, in Yorkshire; two diligent, industrious, and well-informed botanists...

Robson probably triggered William Oliver's interest in fungi. In a letter to Sowerby dated 15 November, 1797, he states: "...D^{r}. Oliver is now in want of N^{o}. 75, 76, & 77 of E.B. & all the numbers of [English] Fungi published since Sep^{t}. 1796 (w^{ch}. I think was N^{o}. 9)..." [46] In a letter dated 1 November, 1801, Robson, somewhat belatedly, appears to ask again for these numbers of *English Fungi*: "...A Friend of mine who has N^{o}. 1 to N^{o}. 9 inclusive of E. Fungi wishes to have the Numbers that make up the first Volume w^{ch}. Please to send..." [47] It seems likely that this friend was Oliver. In Robson's herbarium there is a specimen of a fungus on (birch? [48]) with a label in William Oliver's hand which reads: "Some of this bear [sic] a striking resemblance to the Chrysalis of an Insect. Sphaeria tremelloides."

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[44] In fact, this work was issued in parts from January, 1796 (Henrey, 1975 II:146).
[45] JS ref: 16/A48/f.78.
[46] JS ref: 16/A48/f.81.
[47] JS ref: 16/A48/f.90.
[48] JS ref: 9/A25/f.59. Letter to Sowerby from Harriman.

The Rev. Jelinger Symons (1778-1851) published his *Synopsis Plantarum Insulis Britannicis Indigenarum*, 1798, a pocket flora in Latin, when only twenty years of age and a curate at Whitburn in County Durham (Desmond, 1977:597). Robson helped him with the book.[49] Symons was aware of Oliver's botanical activities.[50] Edward seems to have encouraged a number of young botanists, which is hardly surprising given that Quakers were sympathetic to nature. We know about James Backhouse Snr. in this connection. Dawson Turner sent Edward a presentation copy of his *Synopsis of British Fuci*, 1802, in 2 volumes. Edward wrote to him on 24 September, 1803, in acknowledgement, thus:

> ...I have done very little in Botany for some time hav[8] been of late much confined at home - but propose having an excursion with two Junior botanists of this place to the neighbourhood of Middleton Teesdale [indecipherable] in a week or two - our object will principally be in search of lichens...[51]

Edward also made detailed comments in the *Additions and Corrections* section (pp. 430-436) of John Hull's pocket *British Flora*, 1799, which was written in English. Henrey (1975, II:154) describes this flora as "The last important work to be published on British plants during the eighteenth century..." Edward's comments in Hull about some of the Teesdale rarities will be examined later.

We know that Edward had "nearly given over the study [of botany]" by 1808.[52] D. E. Allen's (pers. comm.) comments on the decline in interest and activity locally following the completion of a flora have already been noted. By 1810 he had sold the "Cryptogamia part of his *English Botany*..." [53] In August, 1812, Harriman gave

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[49] ER ref: Add. MS 8190. Letter dated 26 October, 1797, written by Jelinger Symons at **Whitburn** to Robson. Symons moved from Whitburn to Herefordshire in 1808 (Davis, 1988: 20).
[50] W1: 239. Letter from Symons to Winch dated 17 October, 1805. Symons has added the following footnote to his entry for *G. verna* in his *Synopsis* (1798: 65): "*In agro Dunelmensi à* D. Oliver nuper *reperta*" (Recently found in a field in Durham by D. Oliver). " D. " is an abbreviation for *Dominus*, a term implying respect.
[51] DT ref: **2** f.216. The "two Junior botanists" may have been James I'Anson (Jansen) (1784-1821) and Nathan Backhouse (1788-1805) (Welch, 1958:39-40).
[52] W2.077.
[53] W2.106.

Edward eight signatures for his botanical autograph album.[54] This is the last event of a botanical nature which I have discovered in Robson's life.

Robson suffered from heart disease. After consulting several local medical men he and his wife set out for London at the beginning of May, 1813, intending to seek the opinions of some other physicians. He died on 21 May, 1813, aged forty-nine and a half, at Tottenham in Middlesex. He is buried in the Friends' burial ground, in Bunhill Fields, London (James Backhouse [Snr.], 1831: App. 79-90). Baker (1903: 78) states that he is buried beside George Fox (1624-1691), the founder of Quakerism.

I now wish to explain the particular roles played by Oliver, Harriman, Robson and Binks in the botanical exploration and floristic recognition of Upper Teesdale.

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[54] There is a note in Robson's album to this effect. See note 5/3 above for reference.

CHAPTER 6

THE PERIOD FROM HARRIMAN BECOMING THE CURATE AT EGGLESTON TO EDWARD ROBSON COMPILING *PLANTAE RARIORES...*

My primary insight in this research arose from my comparing *Plantae rariores agro Dunelmensi indigenae* **(pl. 3)** with Edward Robson's *Plantae Dunelmenses*, dated 22 May, 1794 **(plates 34 & 45)**. At that time it was not known that Edward's *Plantae Desideratae* dated 1 May, 1798, formed part of *Plantae rariores...*, that is, that, as already explained, the date of *Plantae rariores...* is also 1 May, 1798. However, Horsman and Davis (1990: 73) suggested that both lists "were printed in late April and circulated in early May, 1798." Further, the existence of *Catalogus Plantarum rariarum* [sic] *circa Darlington sponte nascentium* (the Darlington Catalogue), which I have dated 1 June, 1794, was not then known. It would have been more appropriate to have compared *Plantae rariores...* with the Darlington Catalogue in that one would have been comparing like with like, both being lists of plant duplicates to which Robson had access. However, my conclusion from my original comparison is unaffected by my discovery of the Darlington Catalogue. That conclusion is that most of the Teesdale plant rarities were either discovered during the period 1794 to 1798, or brought to Robson's notice in that same period. It will no doubt already be evident that the second alternative is the case. However, it is necessary to demonstrate it.

It is my contention that Robson compiled *Plantae rariores...* from his own list, a joint list supplied by Oliver and Harriman, and a list supplied by William Weighell of

Bishop Wearmouth.[1] I will deal with Weighell first. He was very knowledgeable about the alien plants to be found on the Sunderland ballast hills (Baker, 1903:79-80). I, therefore, think that he is almost certainly wholly responsible for the list on page two of *Plantae rariores...* headed *Plantae Sequentes apud Sunderland in collibus anglice Ballust Hills dictis, proveniunt* (The following plants come from near Sunderland on hills, in English called the Ballast Hills) **(pl. 3)**. I also think it highly likely that he contributed to the lists of maritime plants in *Plantae rariores...* However, there is no evidence that Weighell ever botanised in Upper Teesdale. There is no other obvious contributor to *Plantae rariores...*, and certainly no other contributor of Upper Teesdale plants, apart from Oliver, Harriman and Robson.

To turn to Oliver and Harriman's list. This list is not extant. However, it has proved possible to reconstruct it. That such a list did indeed exist is established by Harriman's letter to Sowerby dated 1 June, 1798. Only one earlier letter to Sowerby from Harriman is extant, namely, that dated 21 June, 1797, appended to Edward's letter of the same date **(pl. 27)**. Harriman's letter of 1 June, 1798, written from Eggleston, reads as follows:

> I take the Liberty to send you by the Coach, recent Specimens of Bartsia alpina, Arbutus Uva-ursi, Vaccinium Vitis-idaea, Rubus Chamaemorus, Melampyrum sylvaticum? [my emphasis] [2], Convallaria majalis, Rhodiola rosea, & Arenaria verna, which were gathered **in this Neighbourhood** [my emphasis] Yesterday - those of Bartsia alpina near Widdy Bank in Teesdale Forest, those of Arbutus Uva-ursi on Force Garth Scar, those of Vaccinium Vitis-idaea near the Source of Eglesbourn, those of Rubus Chamaemorus on Knoutberry Fell, those of Melampyrum sylvaticum & Convallaria majalis near the Winch Bridge, those of Rhodiola rosea on Mase [sic] Beck Scar, & those of Arenaria verna on Cronkley Fell. The two last Habitats, tho **in this Neighbourhood** [my emphasis], are not in this County - the former being in Westmoreland, & the latter in Yorkshire. Rubus Chamaemorus is very common with crenate Petals on Knoutberry Fell. - I committed an Error in calling the Fructification of Lichen calvus Scutella. - *I will thank you to add to the List of Plants* [my italics] **of this neighbourhood** [my emphasis], Lichen lacustris & Lichen exilis, Convallaria majalis & Arbutus Uva-ursi. - I send you also, *which I omitted to insert in their proper* [Linnaean] *Place* [my italics], Specimens of Cochlearia

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[1] DT ref: **3** f.122. Letter from Winch to Turner dated 12 February, 1802. Winch states: "...The industrious Mr. Weighell died about a year ago..." Ref: W1.084, a letter from Oliver to Weighell dated 5 March, 1799, addressed to "Mr. William Weighel [sic] Schoolmaster Bishop Wearmouth Durham." Bishop Wearmouth is near Sunderland.

[2] Lightfoot (1777:325) made the first record for Britain.

officinalis & Cochlearia groenlandica, if indeed it be groenlandica: the former grew near Whey Sike House in Teesdale Forest, the latter in Harwood.[3]

Harriman has written the following footnote to his letter:

Mr. Oliver & I send you the plants.

It may seem obvious from this letter that a manuscript list existed, but it was a long time before I was able to convince myself. Factors which confused matters were the printing of *Plantae rariores...*; Oliver and Harriman having sent fifty specimens of *Gentiana verna* to Smith on 4 May, 1798 (Garry, 1904 Supplement: 124) (with a copy of *Plantae rariores...* which Sowerby saw?); Sowerby requesting a copy of *Plantae rariores...* and Robson's *desideratae*, which Robson sent him on 12 May, 1798,[4] and what Harriman meant by "this Neighbourhood" - it is evident from the above letter that it was a large area (which, as will be demonstrated later, even included Barnard Castle): did he mean County Durham, and was he, therefore, referring to *Plantae rariores...*? The difficulty was establishing the existence of a manuscript list for "this Neighbourhood", as distinct from *Plantae rariores...* or an annotated copy of it. However, having carefully examined the above factors, I am now satisfied that the letter of 1 June, 1798, from Harriman to Sowerby demonstrates that a manuscript list of the plants of the neighbourhood of Eggleston, from where Harriman wrote this letter, existed. In Harriman's letter of 27 December, 1798, to Sowerby, he refers to "...our [Oliver & Harriman's] List of rarer Plants...",[5] and in his letter of 5 February, 1799, to Sowerby, he refers to "...our List of the rarer Plants of this Neighbourhood." [6]

Before considering why Oliver and Harriman prepared such a list, a general observation on the letter of 1 June, 1798, is appropriate. Having sent Sowerby the list,

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[3] JS ref: 9/A25/f.49.
[4] Bodleian Library. Ref. John Johnson Collection; Agriculture, Horticulture, Silviculture Folder 1.
[5] JS ref: 9/A25/f.57.
[6] JS ref: 9/A25/f.59.

Harriman, on his own initiative, is now taking the first opportunity in the 1798 field season to send Sowerby some of the interesting plants on the list. It is evident from the letter that a lot of ground was covered in gathering the plants sent. Even if a horse(s) was used, I think more than one person did the gathering: Oliver in Upper Teesdale and Harriman in the vicinity of Eggleston (the "Source of Eglesbourn" and Knoutberry Fell [7] are near Eggleston). As will be discussed later, Harriman had already notched up a success with Smith over *G. verna*. I believe he was now seeking to consolidate his position, having very much in mind being elected a Fellow of the Linnean Society, in which endeavour he was successful later that year.

To examine the background to Oliver and Harriman's list. We know that the first letter Harriman wrote to Sowerby, which was on behalf of Oliver and himself, was appended to Robson's letter of 21 June, 1797. This was soon followed by another letter from Robson, on 26 June, 1797:

> I will be obliged to thee to purchase for a Friend of mine (J Harriman of Egleston) Dillen. [Dillenius's] Historia Muscorum,[8] who will also be obliged by thy sending at ye same time the Rules of the Linnean Society & a list of the Members, he has some thoughts of getting recommended as a Fellow - another Friend of mine (W^m^. Oliver, Surgeon of Middleton) wishes to have English Botany - May therefore send all the numbers of it w^ch^. are published...I shall be glad to hear the two Parcels of Plants lately sent,[9] arrived Safe & in good condition. With the help of my Friends in dist. parts of this county I hope to be able to furnish several rare Plants for E. B. Have *found* [my italics] Argemone mexicana & Hyoscyamus albus (both new to the English Flora) in the Neig^d^. of Sunderland...[10]

I am in no doubt that Robson's reference to "Friends in dist. parts of this county" is a reference to Harriman and Oliver, and Weighell. In a letter to Sowerby dated 15 November, 1797, Robson states:

> ...The last Set of E.B. w^ch^. I had from thee was for a Friend of mine at Middleton in this county viz. W^m^. Oliver, Surgeon - **an industrious Botanist** [my emphasis] who with my Frd Harriman ("with my Frd Harriman" inserted] Sent some things for E.B. they [altered from "he"] expected a few lines from thee, on receipt of them & seemed much disappointed at the omission - D^r^. Oliver

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[7] *The Botanist's Guide*, 1805, no. 465.

[8] Sowerby replied on 4 July, 1797 (ER ref: Add. MS 8190): "I cannot get Dill^n^ His. Mus. for less than 12 Guineas if it is not too much will get as soon as you let me know,..." Robson replied on 6 July, 1797 (JS ref: 16/A48/f.80): "...I think my Friend w^d^. not like Dill. Musc. at any such price & therefore am glad thou hast not purchased it ..."

[9] That is, those sent by Robson, and Harriman and Oliver, on 21 June, 1797.

[10] JS ref: 16/A48/f.76. Did Weighell *discover* these two plants?

> is now in want of N°. 75, 76, & 77 of E. B. & all the numbers of Fungi published since Sep[r]. 1796 (w[ch]. I think was N°. 9)...I am now writing a list of the rare Plants of the County of Durham, w[ch]. will be a very copious one - I will fwd thee one when completed...[11]

Robson has added a P. S. which reads: "My great haste must apologise for the very many blunders of this Scrawl". What prompted Edward to write such a list at this time? I am in no doubt that it was because he had become fully aware of all the plant records made in Upper Teesdale. His Darlington Catalogue required ruthless updating. It will be remembered that both the Darlington Catalogue and *Plantae rariores...* served the same purpose: they were lists of locally available duplicates. Why did Harriman prepare "our List"? So that Robson could compile and have privately printed *Plantae rariores...* for the mutual benefit of himself, Oliver and Harriman, and Weighell. Robson had *Plantae rariores...* combined with his *Plantae Desideratae* **(pl. 3)**. As Oliver would undoubtedly be paying for the private printing, given Harriman's financial circumstances, Oliver's *Plantae Desideratae* **(pl. 47)** was combined with their copies of *Plantae rariores...* Harriman annotated Oliver's *Plantae Desideratae* with his own desideratae **(pl. 48)**. *Plantae rariores...* covered both Oliver and Harriman's, and Robson's and Weighell's areas. They would, therefore, have to rely on each other for some of the duplicates their botanical correspondents required.

I think it highly likely that Oliver had made a list of the plants he had found in the neighbourhood of Middleton-in-Teesdale before Harriman arrived on the scene. As a surgeon apothecary, he would have had to be highly organised with his drugs. Perhaps list making was common place in such professions? As will be discussed later, Oliver sent Robson some plants in 1796. He labelled each plant and gave it a number. Robson cut out these numbered labels and stuck them on the appropriate herbarium sheets. In 1799 Oliver sent Weighell eighty species of lichen (plus one doubtful

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[11] JS ref: 16/A48/f.81.

Plate 47. William Oliver's *Plantae Desideratae* at 20 November, 1798. James Sowerby Correspondence, Natural History Museum, London.

PLANTÆ DESIDERATÆ.

CHARA
tomentosa.
VERONICA
verna.
alpina.
saxatilis.
humifusa
PINGUICULA
lusitanica.
UTRICULARIA
minor
ORCHIS
militaris.
abortiva.
SATYRIUM
hircinum.
~~cuneum~~
OPHRYS
corallorhiza.
loeselii.
monorchis.
anthropophora.
araniferia.
SERAPIAS
~~cordifolia~~
grandiflora.
rubra.
LEMNA
gibba.
SALIX
triandra.
myrsinites.
retusa.
~~reticulata~~
lanata.
lapponum.
rosmarinifolia.
CROCUS
sativus, var. ß.
ERIOPHORUM
polystachion.
alpinum.
SCIRPUS
pauciflorus.
holoschænus.
romanus.
triqueter.
CYPERUS
acicularis.
longus.
SCHŒNUS
ferrugineus.
fuscus.
rufus.
CAREX
pauciflora.
~~stellulata~~
curta.
incurva.
~~intermedia~~.
~~disticha~~.
teretiuscula.
clandestina.
~~ovata~~.
capillaris.
~~depauperata~~.
recurva.
attrata.
rigida.
stricta.
ampullacea.
SPARGANIUM
natans.
PANICUM
verticillatum.
crus galli.
sanguinale.
PHLEUM
nodosum.
alpinum.
MILIUM
lentigerum.
CALAMAGROSTIS
lanceolata.
AGROSTIS
vinealis.
pallida.
alpina.
littoralis.
nigra.
maritima.
minima.
AIRA.
~~aquatica~~
canescens.
POA
alpina.
angustifolia.
bulbosa.
~~compressa~~.
glauca.
BRIZA
minor.

FESTUCA
~~bromoides~~.
myurus.
rubra.
glabra.
~~ambigua~~.
Coiacea.
pinnata.
BROMUS
squarrosus.
erectus.
madritensis.
arvensis.
~~AVENA~~
~~nebulosa~~.
~~diandra~~.
LAGURUS
ovatus
LOLIUM
bromoides
ELYMUS
europæus.
ERIOCAULON
septangulare.
GALIUM
montanum.
erectum.
scabrum.
anglicum.
RUBIA
tinctorum.
~~LYCIUM~~
~~Europæum~~
~~EUPATORIUM~~
~~cannabinum~~
~~CENTUNCULUS~~
~~minimus~~
CORNUS
suecica.
~~VISCUM~~
~~album~~.
BUFFONIA
tenuifolia.
~~CUSCUTA~~
~~europæa~~
~~epithymum~~.
POTAMOGETON
fatuceum.
SAGINA
erecta.
ceratoides.
LITHOSPERMUM
purpureo-cæruleum.
CYNOGLOSSUM
sylvaticum
ASPERUGO
procumbens
CYCLAMEN
europæa.
MENYANTHES
nymphoides.
LYSIMACHIA
thyrsiflora.
AZALEA
procumbens
CAMPANULA
patula.
PLYTEUMA
orbicularis.
LOBELIA
urens.
VERBASCUM
thapsoides.
virgatum.
CHIRONIA
pulchella.
RIBES
uva-crispa.
HERNIARIA
hirsuta.
SALSOLA
fruticosa.
ULMUS
montana.
SWERTIA
perennis.
GENTIANA
nivalis.
ECHINOPHORA
spinosa.
TORDYLIUM
maximum.
officinale.
CAUCALIS
latifolia.
scandicina.
DAUCUS
maritimus.
SELINUM
palustre.
ATHAMANTA
libanotis.

PEUCEDANUM
officinale.
LIGUSTICUM
scoticum.
cornubiense.
SIUM
repens
SISON
segetum.
verticillatum.
SCANDIX
cerefolium.
PIMPINELLA
dioica.
~~SAXIFRAGA~~
~~hirculus~~.
LINUM
tenuifolium.
NARCISSUS
poeticus.
ALLIUM
ampeloprasum.
arenarium.
~~oleraceum~~.
TULIPA
sylvestris
ORNITHOGALUM
pyrenaicum.
SCILLA
autumnalis.
bifolia.
verna.
ANTHERICUM
serotinum.
ASPARAGUS
officinalis.
CONVELLARIA
verticillata.
JUNCUS
~~filiformis~~.
bigumis.
spicatus.
FRANKENIA
pulverulenta.
RUMEX
paludosus.
ALISMA
damasonium.
natans.
lanceolata.
EPILOBIUM.
alpinum
~~HYOSCYAMUS~~
~~niger~~.
ERICA
daboecia.
~~vagans~~.
POLYGONUM
minus.
QUERCUS
semina.
MONOTROPA
hypopithys.
ARBUTUS
uneda.
alpina.
~~uva-ursi~~.
PYROLA
~~secunda~~.
uniflora.
SAXAFRAGA
hirculus.
cernua.
moschata.
SCLERANTHUS
perennis
polycarpos.
DIANTHUS
prolifer.
caryophyllus
casius.
CUCUBALUS
baccifera.
SILENE
conica.
acaulis
STELLARIA
cerastoides.
ARENARIA
media.
juniperina.
laricifolia.
CHERLERIA
sedoides.
COTYLIDON
lutea.
SEDUM
anglicum.
OXALIS
corniculata.

CERASTIUM
~~alpinum~~.
latifolium.
pumilum.
SPERGULA
subulata.
CERATOPHYLLUM
submersum.
LYTHRUM
hyssopifolium.
EUPHORBIA
peplis.
portlandica.
stricta.
platiphyllos.
hyberna.
characias.
cyparissias.
PRUNUS
avium.
CRATÆGUS
torminalis.
SORBUS
domestica.
MESPILUS
germanica.
RUBUS
arcticus.
POTENTILLA
rupestris.
opaca.
aurea.
ACTÆA
spicata.
~~CHELIDONIUM~~
~~corniculatum~~.
PAPAVER
maritimum.
somniferum.
CISTUS
guttatus.
salicifolius.
polyfolius.
ZOSTERA
marina.
oceanica.
ANEMONE
pratensis.
ADONIS
æstivalis.
RANUNCULUS
gramineus.
hirsutus.
AJUGA
pyramidalis.
~~chamæpitys~~.
TEUCRIUM
scordium.
GALEOPSIS
grandiflora.
~~canescens~~.
STACHYS
arvensis.
germanica.
THYMUS
acinos.
~~SCUTELLARIA~~
~~minor~~
~~STATICE~~
~~viscosa~~.
MELAMPYRUM
cristatum.
arvense.
~~sylvaticum~~
ANTIRRHINUM
~~supina~~.
arvense.
LINNÆA
borealis
~~GRATIOLA~~
~~officinalis~~
LIMOSELLA
aquatica.
OROBANCHE
ramosa.
VELLA
annua.
SUBULARIA
aquatica.
DRABA
stellata.
LEPIDIUM
petræum.
THLASPI
perfoliatum.
montanum.
COCHLEARIA
danica.
DENTARIA
bulbifera.
CARDAMINE
bellidifolia.
petræa.
impatiens.

~~SISYMBRIUM~~
~~sylvestre~~
amphibium.
HESPERIS
inodora.
~~ARABIS~~
~~thaliana~~.
BRASSICA
campestris
MALVA
pusilla.
~~LAVATERA~~
~~arborea~~
~~ONONIS~~
~~spinosa~~.
PISUM
maritimum.
LATHYRUS
palustris.
VICIA
hybrida.
bythynica.
ASTRAGALUS
uralensis.
~~glycyphyllos~~.
~~HYPERICUM~~
~~dubium~~.
TRAGOPOGON
pratensis.
SONCHUS
canadensis.
LACTUCA
scariola.
saligna.
~~LEONTODON~~
~~taraxacum~~
HIERACIUM
alpinum.
taraxaci.
dubium
auricula.
praealtum
sylvaticum.
villosum.
molle.
HYOSERIS
minima.
HYPOCHÆRIS
maculata.
SERRATULA
alpina.
~~CARDUUS~~
~~acaulis~~
~~praecox~~
SANTOLINA
maritima.
ARTEMISIA
campestris.
cærulescens.
GNAPHALIUM
luteo-album.
sylvaticum.
supinum.
gallicum.
arvense.
ERIGERON
alpinum.
SOLIDAGO
cambrica.
lapponica.
CINERARIA
palustris.
integrifolia.
INULA
cylindrica.
ANTHEMIS
maritima.
CENTAURIA
solstitialis.
CALENDULA
arvensis.
LYCOPODIUM
anoetinum.
~~PHYLLITIDIS~~
~~fissilifera~~
ACHROSTICHUM
septentrionale.
ASPLENIUM
alternifolium.
lanceolatum.
POLYPODIUM
lonchytis.
arvonicum.
thelypteris.
dentatum.
fontanum.
spinulosum.
trifidum.
rhæticum.
TRICHOMANES
pyxidiferum.
~~Cambridgense~~.

Mrs Kanthian

I wish to know where the Specimens grew which are sent to Mrs. I am indebted for them.
You will find in the Box what appears to me to be a Bladder of some Fucus. What is it?

Plate 48 (one sheet). John Harriman's *Plantae Desideratae* at 20 November, 1798.
James Sowerby Correspondence, Natural History Museum, London.

PLANTÆ DESIDERATÆ.

CHARA
tomentosa.

VERONICA
agrestis.
alpina.
fruticulosa.
humifusa.

PINGUICULA
lusitanica.

UTRICULARIA
minor

ORCHIS
militaris.
abortiva.

SATYRIUM
hircinum.
viride.

OPHRYS
corallorhiza.
loeselii.
monorchis.
anthropophora.
araniferia.

SERAPIAS
ensifolia.
grandiflora.
rubra.

LEMNA
gibba.

SALIX
triandra.
myrsinites.
retusa.
reticulata.
lanata.
lapponum.
rosmarinifolia.

CROCUS
sativus, var. γ.

ERIOPHORUM
polystachyon.
alpinum.

SCIRPUS
pauciflorus.
holoschænus.
romanus.
triqueter.

CYPERUS
acicularis.
longus.

SCHŒNUS
ferrugineus.
fuscus.
nitens.

CAREX
pauciflora.
stellulata.
curta.
incurva.
intermedia.
dioica.
teretiuscula.
clandestina.
extensa.
capillaris.
depauperata.
recurva.
atrata.
rigida.
stricta.
ampullacea.

SPARGANIUM
natans.

PANICUM
verticillatum.
crus-galli.
sanguinale.

PHLEUM
nodosum.
alpinum.

MILIUM
lenigerum.

CALAMAGROSTIS
lanceolata.

AGROSTIS
vinealis.
pallida.
alpina.
littoralis.
nigra.
maritima.
minima.
Arundo
montana.
canescens.

POA
alpina.
angustifolia.
bulbosa.
repens.
glauca.

BRIZA

FESTUCA
bromoides.
myurus.
rubra.
glabra.
cambrica.
Coriacea.
pinnata.

BROMUS
squarrosus.
arvensis.
madritensis.
asperus.

AVENA
pubescens.
elongata.

LAGURUS
ovatus

LOLIUM
bromoides

ELYMUS

ERIOCAULON
septangulare.

GALIUM
erectum.
scabrum.
anglicum.

RUBIA
tinctorum.

ERAGUM
filiformis.

LITTORELLA
lacustris.

CENTUNCULUS
minimus.

CORNUS
suecica.

VISCUM
album.

BUFFONIA
tenuifolia.

CUSCUTA
europæa.
epithymum.

POTAMOGETON
natans.

SAGINA
procumbens.
ceratoides.

LITHOSPERMUM
purpureo-cæruleum.

CYNOGLOSSUM
sylvaticum

ASPERUGO
procumbens

CYCLAMEN
europæum.

MYRIOPHYLLUM
spicatum.

LYSIMACHIA
thyrsiflora.

ANAGALLIS
procumbens

CAMPANULA
patula.

PHYTEUMA
orbicularis.

LOBELIA
urens.

VERBASCUM
thapsoides.
virgatum.

CHIRONIA
pulchella.

RIBES
uva-crispa.

HERNIARIA
hirsuta.

SALSOLA
fruticosa.

ULMUS
montana.

SWERTIA
perennis.

GENTIANA
nivalis.

ECHINOPHORA
spinosa.

TORDYLIUM
maximum.
officinale.

CAUCALIS
latifolia.
sylvestris.
temulentum.

DAUCUS
maritimus.

SELINUM
palustre.

ATHAMANTA
libanotis.

PEUCEDANUM
officinale.

LIGUSTICUM
scoticum.
cornubiense.

SIUM
latifolium.
repens.
angustifolium.

SISON
segetum.
verticillatum.

SCANDIX
cerefolium.

PIMPINELLA
dioica.

CORRIGIOLA.
littoralis.

LINUM
radiola.

NARCISSUS
pseudo-Narcissus.
poeticus.

ALLIUM
ampeloprasum.
arenarium.
carinatum.

TULIPA
sylvestris

ORNITHOGALUM
pyrenaicum.

SCILLA
autumnalis.
bifolia.
verna.

ANTHERICUM
serotinum.

ASPARAGUS
officinalis.

CONVALLARIA
verticillata.

JUNCUS
uliginosus.
squarrosus.
spicatus.

FRANKENIA
pulverulenta.

RUMEX
paludosus.

ALISMA
damasonium.
natans.
lanceolata.

EPILOBIUM.
alpinum.

VACCINIUM
uliginosum.

ERICA
daboecia.

POLYGONUM
viviparum.

QUERCUS
semina.

MONOTROPA
hypopithys.

ARBUTUS
unedo.
alpina.

PYROLA
rotundifolia.
uniflora.

SAXAFRAGA
hirculus.
cernua.
moschata.

SCLERANTHUS
perennis.
polycarpos.

DIANTHUS
prolifer.
caryophyllus.
barbatus.

CUCUBALUS
baccifera.

SILENE
noctiflora.
conica.
acaulis.

STELLARIA
cerastoides.

ARENARIA
media.
juniperina.
laricifolia.

CHERLERIA
sedoides.

COTYLIDON
lutea.

SEDUM
anglicum.

OXALIS
corniculata.

CERASTIUM
alpinum.
latifolium.
pumilum.

SPERGULA
subulata.

CERATOPHYLLUM
submersum.

LYTHRUM
hyssopifolium.

EUPHORBIA
peplis.
portlandica.
stricta.
helioscopia.
hyberna.
characias.
cyparissias.

PRUNUS
avium
cerasus.

SORBUS
domestica.

MESPILUS
germanica.

RUBUS
arcticus.

POTENTILLA
rupestris.
opaca.
aurea.

ACTÆA
spicata.

CHELIDONIUM
corniculatum.

PAPAVER
maritimum.
somniferum.

CISTUS
guttatus.
salicifolius.
polyfolius.

ZOSTERA
marina.
oceanica.

ANEMONE
pratensis.

ADONIS
æstivalis.

RANUNCULUS
gramineus.
hirsutus.

AJUGA
pyramidalis.
chamæpitys.

TEUCRIUM
scordium.

GALEOPSIS
grandiflora.
canescens.

STACHYS
arvensis.
germanica.

THYMUS
serpyllum.

SCUTELLARIA
minor.

BARTSIA
viscosa.

MELAMPYRUM
cristatum.
arvense.
sylvaticum.

ANTIRRHINUM
repens.
arvense.

LINNÆA
borealis

BIDENS
cernua.

LIMOSELLA
aquatica.

OROBANCHE
ramosa.

VELLA
annua.

SUBULARIA
aquatica.

DRABA
stellata.

LEPIDIUM
petræum.

THLASPI
perfoliatum.
montanum.

COCHLEARIA
danica.

DENTARIA
bulbifera.

CARDAMINE
bellidifolia.
petræa.
impatiens.

BISYMBRIA
sylvestre.
amphibium.

HESPERIS
inodora.

ARABIS
stricta.

BRASSICA
campestris.

MALVA
pusilla.

LAVATERA
arborea.

ONONIS
spinosa.

ANTHYLLIS
vulneraria.

VICIA
hybrida.
hirsuta.

ASTRAGALUS
uralensis.

HYPERICUM
dubium.

TRAGOPOGON
pratense.

SONCHUS
canadensis.

LACTUCA
scariola.
saligna.

LEONTODON.
taraxacon.

HIERACIUM
alpinum.
taraxaci.
dubium.
auricula.
prenanthoides
sylvaticum.
villosum.
molle.

HYOSERIS
minima.

HYPOCHÆRIS
maculata.

SERRATULA
alpina.

CARDUUS
acanthoides.
pratensis.

SANTOLINA
maritima.

ARTEMISIA
campestris.
caerulescens.

GNAPHALIUM
luteo-album.
sylvaticum.
supinum.
gallicum.
arvense.

LYCOPODIUM
selago.
alpinum.

SOLIDAGO
cambrica.
lapponica.

CINERARIA
palustris.
integrifolia.

INULA
cylindrica.

ANTHEMIS
arvensis.
maritima.

CENTAURIA
solstitialis.

CALENDULA
arvensis.

LYCOPODIUM
annotinum.

EQUISETUM
fluviatile.

ACHROSTICHUM
septentrionale.

ASPLENIUM
alternifolium.
lanceolatum.

POLYPODIUM
lonchytis.
arvonicum.
thelypteris.
dilatatum.
fontanum.
Ruta muraria.
viridum.
rhæticum.

TRICHOMANES
pyxidiferum.
Tunbridgense.

CHARA
tomentosa.
VERONICA
alpina.
PINGUICULA
lusitanica.
UTRICULARIA
minor
ORCHIS
militaris.
abortiva.
SATYRIUM
hircinum.
OPHRYS
corallorhiza.
loeselii.
anthropophora.
araniferia.
SERAPIAS
rubra.
LEMNA
gibba.
SALIX
triandra.
myrsinites.
retusa.
lanata.
lapponum.
rosmarinifolia.
CROCUS
sativus, var. β.
SCIRPUS
pauciflorus.
holoschænus.
romanus.
triqueter.
CYPERUS
acicularis.
longus.
SCHŒNUS
ferrugineus.
fuscus.
CAREX
pauciflora
curta.
incurva.
teretiuscula.
clandestina.
extensa.
depauperata.
recurva.
atrata.
rigida.
stricta.
ampullacea.
SPARGANIUM
natans.
PANICUM
verticillatum.
crus galli.
sanguinale.
PHLEUM
nodosum.
MILIUM
lendigerum.
CALAMAGROSTIS
lanceolata.
AGROSTIS
vinealis.
pallida.
alpina.
littoralis.
nigra.
maritima.
minima.
POA
alpina.
angustifolia.
bulbosa.
glauca.
BRIZA

FESTUCA
rubra.
glabra.
cambrica.
Coliacea.
BROMUS
squarrosus.
madritensis.
arvensis.
AVENA
pubescens.
LAGURUS
ovatus
LOLIUM
bromoides
ERIOCAULON
septangulare.
GALIUM
erectum.
scabrum.
anglicum.
RUBIA
tinctorum.
LITTORELLA
CENTUNCULUS
minimus.
CORNUS
suecica.
BUFFONIA
tenuifolia.
CICUTA
europæa.
POTAMOGETON
fataceum.
SAGINA
cerastoides.
CYNOGLOSSUM
sylvaticum
CAMPANULA
patula.
PLYTEUMA
orbicularis.
LOBELIA
urens.
VERBASCUM
thapsoides.
virgatum.
CHIRONIA
pulchella.
RIBES
uva-crispa.
HERNIARIA
hirsuta.
SALSOLA
fruticosa.
ULMUS
montana.
SWERTIA
perennis.
GENTIANA
nivalis.
ECHINOPHORA
spinosa.
TORDYLIUM
maximum.
CAUCALIS
DAUCUS
maritimus.
SELINUM
palustre.
ATHAMANTA
libanotis.

PEUCEDANUM
officinale.
LIGUSTICUM
scoticum.
SIUM
SISON
verticillatum.
SCANDIX
cerefolium.
CORRIGIOLA.
LINUM
NARCISSUS
ALLIUM
ampeloprasum.
carinatum.
TULIPA
sylvestris
SCILLA
autumnalis.
bifolia.
verna.
ANTHERICUM
ferotinum.
ASPARAGUS
officinalis.
CONVELLARIA
verticillata.
JUNCUS
spicatus.
FRANKENIA
pulverulenta.
RUMEX
paludosus.
ALISMA
damasonium
natans.
lanceolata.
EPILOBIUM
alpinum.
ERICA
daboecia.
POLYGONUM
QUERCUS
femina.
MONOTROPA
hypopithys.
ARBUTUS
unedo.
alpina.
PYROLA
uniflora.
SAXAFRAGA
hircalus.
cerua.
moschata.
SCLERANTHUS
polycarpos.
DIANTHUS
prolifer.
CUCUBALUS
bacciferus.
SILENE
conica.
acaulis
STELLARIA
cerastoides.
ARENARIA
media.
juniperina.
laricifolia.
CHERLERIA
sedoides.
COTYLIDON
lutea.
SEDUM
OXALIS
corniculata.

CERASTIUM
alpinum.
latifolium.
pumilum.
SPERGULA
subulata.
CERATOPHYLLUM
submersum.
LYTHRUM
hyssopifolium.
EUPHORBIA
peplis
portlandica.
stricta.
hyberna.
characias.
cyparissias.
PRUNUS
avium
SORBUS
domestica.
MESPILUS
germanica.
RUBUS
arcticus.
POTENTILLA
rupestris.
opaca.
aurea.
ACTÆA
spicata.
CHELIDONIUM
corniculatum.
PAPAVER
maritimum.
somniferum.
CISTUS
guttatus.
salicifolius.
polyfolius.
ZOSTERA
marina.
oceanica.
ANEMONE
pratensis.
ADONIS
æstivalis.
RANUNCULUS
gramineus.
hirsutus.
AJUGA
pyramidalis.
TEUCRIUM
scordium.
GALEOPSIS
tetrahit.
STACHYS
arvensis.
germanica.
THYMUS
SCUTELLARIA
minor.
BARTSIA
viscosa.
MELAMPYRUM
cristatum.
arvense.
ANTIRRHINUM
arvense.
LINNÆA
borealis.
LIMOSELLA
aquatica.
OROBANCHE
ramosa.
VELLA
annua.
SUBULARIA
aquatica.
DRABA
stellata.
LEPIDIUM
petræum.
THLASPI
perfoliatum.
montanum.
COCHLEARIA
danica
DENTARIA
bulbifera.
CARDAMINE
bellidifolia.
petræa.
impatiens.

SISYMBRIA
sylvestre.
amphibium.
HESPERIS
inodora.
ARABIS
stricta.
BRASSICA
campestris
MALVA
pusilla.
LAVATERA
arborea.
ONONIS
spinosa.
VICIA
hybrida.
ASTRAGALUS
uralensis.
HYPERICUM
dubium
TRAGOPOGON
porrifolium
SONCHUS
canadensis.
LACTUCA
scariola.
saligna.
LEONTODON.
taraxacon.
HIERACIUM
alpinum.
taraxaci.
dubium.
auricula.
prenanthoides
sylvaticum.
villosum.
mollè.
HYOSERIS
minima.
HYPOCHÆRIS
maculata.
SERRATULA
alpina.
CARDUUS
acanthoides.
pratensis.
SANTOLINA
maritima.
ARTEMISIA
campestris.
caerulescens.
GNAPHALIUM
luteo-album.
sylvaticum.
supinum.
gallicum.
arvense.
ERIGERON
alpinum.
SOLIDAGO
cambrica.
lapponica.
CINERARIA
palustris.
INULA
cylindrica.
ANTHEMIS
maritima.
CENTAURIA
solstitialis.
CALENDULA
arvensis.
LYCOPODIUM
annotinum.
SUBULARIA
globulifera.
ACHROSTICHUM
septentrionale.
ASPLENIUM
alternifolium.
lanceolatum.
POLYPODIUM
lonchytis.
arvonicum.
thelypteris.
fontanum.
trichomanes.
rhæticum.
TRICHOMANES
pyxidiferum.
Tunbridgense.

species).[12] Again, this will be discussed later. However, in his cover letter Oliver states:

> ...Though the greatest number of the specimens have the names written up on them, & are all numbered yet as the paper is bad & you may find some difficulty in making them out I have judged it proper to give a list of their names [and numbers] on the other side... [13]

Clearly, Oliver was a meticulous man. In lieu of a list, he may have annotated his copy of Lightfoot's *Flora Scotica*. Winch did not complete Turner's questionnaire for *The Botanist's Guide through England and Wales*, he simply sent him his annotated set of Withering's *Botanical arrangements* on loan.[14] That Oliver had a herbarium is made clear in Harriman's letter to Sowerby dated 27 December, 1798:

> ...How much our [Oliver and Harriman's] respective Collections have been enriched for the Hundreds of Specimens of rare perfect Plants which we have supplied, the Erasu. in our Desiderata will show...[15]

I think it almost certain that Oliver started his collection, that is, a herbarium including dried lichens kept in paper, before Harriman arrived. That Oliver was familiar with herbaria would seem to be indicated by him sending Robson specimens for his herbarium in 1796.

A very cursory examination of *Plantae rariores...* reveals plants which would certainly have been on a list of the rarer plants to be found in the neighbourhood of Middleton-in-Teesdale or Eggleston. Amongst these are *Helianthemum canum, Potentilla fruticosa, Bartsia alpina, Dryas octopetala, Tofieldia pusilla and Gentiana verna.* In the absence of the list which Harriman sent to Sowerby sometime before 1 June, 1798, is it possible to reconstruct it? Yes. In the Winch correspondence at the Linnean Society of London is a copy of *Plantae rariores...* together with a copy of Oliver's printed *Plantae Desideratae* **(pl. 49)**. Each has been annotated by

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[12] There are eighty-one species in the printed list of lichens in *Plantae rariores...* ! However, the lichens which Oliver sent to Weighell are not all the same as those in *Plantae rariores...*
[13] W1.084.
[14] DT ref: **3** f.200.
[15] JS ref: 9/A25/f.57.

Plate 49 (reconstruction of the single sheet). William Oliver's list of the rarer plants of Upper Teesdale. On page four Winch has written: " Mr. Harriman's List - 1800 ". The Bodleian Library, Oxford (pp. 1 & 2), and the James Sowerby Correspondence, Natural History Museum, London (pp. 3 & 4).

PLANTÆ RARIORES AGRO DUNELMENSI INDIGENÆ.

N. B. *Harum nomina ex Ordinibus Botanicis Clar. Withering sunt desumpta. His solum exceptis ita designatis:* † *Eng. Bot.* ‡ *Gooden. & Woodw. in Lin. Trans.* ‡‡ *Relhan. Fung.* • *Sowerb. Fungi.*

CHARA
- hispida.
- flexilis.

HIPPURIS
- vulgaris.

ZANNICHELLIA
- palustris.

VERONICA
- scutellata.
- montana.

PINGUICULA
- vulgaris.

UTRICULARIA
- vulgaris.

SALVIA
- Verbenaca.

ORCHIS
- bifolia.
- pyramidalis.
- ustulata.
- conopsea

SATYRIUM
- albidum.
- viride.

OPHRYS
- Nidus-avis.
- cordata.
- muscifera.
- apifera.

MALAXIS
- paludosa.

SERAPIAS
- latifolia.
- longifolia.

CYPRIPEDIUM
- Calceolus.

IRIS
- fœtida.

ERIOPHORUM
- vaginatum.

SCIRPUS
- palustris.
- cæspitosus.
- fluitans.
- setaceus.
- sylvaticus.
- maritimus.

CYPERUS
- nigricans.

SCHŒNUS
- Maritcus.

CAREX
- dioica.
- pulicaris.
- ovalis.
- remota.
- arenaria.
- pendula.
- paniced.
- pallescens.
- limosa.

PHALARIS
- canariensis.
- arenaria.

PANICUM
- viride.
- Dactylon.

MILIUM
- effusum.

CALAMAGROSTIS
- Epigejos.
- arenaria.

AIRA
- flexuosa.
- præcox.

MELICA
- cærulea.
- uniflora.

SESLERIA
- cærulea.

POA
- distans.
- cristata.
- nemoralis.
- rigida.
- maritima.

FESTUCA
- duriuscula.
- tenuifolia.
- sylvatica.

ROTTBOLLIA
- incurvata.

ELYMUS
- arenarius
- europæus.

TRITICUM
- junceum.
- caninum.

AMARANTHUS
- Blitum.

MONTIA
- fontana.

EMPETRUM
- nigrum.

DIPSACUS
- sylvestris.
- pilosus.

GALIUM
- procumbens.
- uliginosum.
- spurium.
- boreale.
- Mollugo.

PLANTAGO
- maritima.
- Coronopus.

POTAMOGETON
- perfoliatum.
- lucens.
- densum.
- compressum.
- marinum.
- pusillum.

RUPPIA
- maritima.

PULMONARIA
- officinalis.

BORAGO
- officinal.

PRIMULA
- farinosa.

HOTTONIA
- palustris.

LYSIMACHIA
- vulgaris.

ANAGALLIS
- tenella

CAMPANULA
- latifolia.
- glomerata.
- hybrida.

SAMOLUS
- Valerandi.

JASIONE
- montana.

ATROPA
- Belladonna.

EUONYMUS
- europæus.

VIOLA
- palustris.
- tricolor.
- lutea.

RIBES
- rubrum.
- alpinum.
- spicatum.
- nigrum.
- Grossularia.

GLAUX
- maritima.

CHENOPODIUM
- hybridum.
- olidum.
- polyspermum.
- maritimum.

ATRIPLEX
- portulacoides.
- laciniata.
- littoralis.
- pedunculata.

BETA
- maritima.

GENTIANA
- Amarella.
- campestris.
- verna.

ERYNGIUM
- maritimum.
- campestre.

BUPLEURUM
- tenuissimum.

CAUCALIS
- daucoides

SIUM
- latifolium.
- angustifolium.

SISON
- Amomum.

ŒNANTHE
- crocata.
- pimpinelloides.

SCANDIX
- odorata.

IMPERATORIA
- ostruthium.

PASTINACA
- sativa.

SMYRNIUM
- Olusatrum.

ANETHUM
- Fœniculum.

CARUM
- Carui.

PIMPINELLA
- magna.

APIUM
- graveolens.

SAMBUCUS
- Ebulus.

PARNASSIA
- palustris.

STATICE
- Armeria.
- Limonium.

LINUM
- perenne.

DROSERA
- rotundifolia.
- longifolia.

MYOSURUS
- minimus.

GALANTHUS
- nivalis.

NARCISSUS
- biflorus.
- Pseudo-Nar.

ALLIUM
- oleraceum.

ORNITHOGALUM
- luteum.

NARTHECIUM
- ossifragum.

FRANKENIA
- levis.

RUMEX
- Hydrolapathum.
- pulcher.
- maritimus.
- aureus.

JUNCUS
- triglumis.

TOFIELDIA
- palustris.

TRIGLOCHIN
- maritimum.

COLCHICUM
- autumnale.

ALISMA
- ranunculoides.

EPILOBIUM
- angustifolium.
- tetragonum.

VACCINIUM
- Myrtillus.
- Vitis-idæa.
- Oxycoccos

ERICA
- tetralix.
- cinerea.

DAPHNE
- Laureola.

POLYGONUM
- Bistorta.
- viviparum.

PARIS
- quadrifolia.

ADOXA
- Moschatellina.

RHODIOLA
- rosea.

MYRIOPHYLLUM
- verticillatum.
- spicatum.

MERCURIALIS
- annua.

BUTOMUS
- umbellatus.

PYROLA
- rotundifolia.
- minor.

CHRYSOSPLENIUM
- alternifolium.
- oppositifolium.

SAXAFRAGA
- hirsuta.
- aizoides.
- hypnoides.
- tridactylites.

SAPONARIA
- officinalis.

DIANTHUS
- Armeria.

SILENE
- anglica.
- maritima.
- noctiflora.

STELLARIA
- nemorum.
- uliginosa.

ARENARIA
- peploides.
- marina.
- verna.

SEDUM
- Telephium.
- villosum.
- album.

CERASTIUM
- arvense.

SPERGULA
- nodosa.

RESEDA
- Luteola.
- lutea.

EUPHORBIA
- paralias.

PRUNUS
- padus.

SPIRÆA
- Filipendula.

ROSA
- arvensis.
- spinosissima.
- villosa.

RUBUS
- Idæus.
- cæsius.
- saxatilis.
- chamæmorus.

POTENTILLA
- fruticosa.
- argentea.

GEUM
- rivale.
- var. 2 & 3.

DRYAS
- octapetala

COMARUM
- palustre.

CHELIDONIUM
- glaucum.

PAPAVER
- hybridum.
- Argemone.

NYMPHÆA
- lutea.

CISTUS
- marifolius.

AQUILEGIA
- vulgaris.

THALICTRUM
- alpinum.
- minus.
- majus.

RANUNCULUS
- Lingua.
- hederaceus.

TROLLIUS
- europæus.

HELLIBORUS
- fœtidus.
- viridis.

NEPETA
- Cataria.

VERBENA
- officinalis

LAMIUM
- dissectum.

MELISSA
- Calamintha.

BARTSIA
- alpina.

MELAMPYRUM
- pratense.

LATHRÆA
- squamaria.

ANTIRRHINUM
- spurium.
- Elatine.
- minus.
- majus.

OROBANCHE
- major.

MŒNCHIA
- sessilis.

BUNIAS
- cakile.

ISATIS
- tinctoria.

DRABA
- incana.

LEPIDIUM
- latifolium.
- didymum.
- ruderale.

THLASPI
- arvense.
- alpestre.

COCHLEARIA
- officinalis.
- groenlandica.

CARDAMINE
- flexuosa.
- amara.

SISYMBRIUM
- terrestre.

ERYSIMUM
- cheiranthoides.

ARABIS
- thaliana.

TURRITIS
- glabra.
- hirsuta.

BRASSICA
- oleracea.
- muralis.

JUNIPERUS
- communis.

GERANIUM
- sanguineum.
- sylvaticum.
- lucidum.

MALVA
- moschata.

TAXUS
- baccata.

FUMARIA
- claviculata.

GENISTA
- anglica.

ANTHYLLUS
- Vulneraria.

LATHYRUS
- Aphaca.
- hirsutus.

VICIA
- Sylvatica.
- lathyroides.

ORNITHOPUS
- perpusillus.

HEDYSARUM
- Onobrychis.

ASTRAGALUS
- Hypoglottis.
- Glycophyllos.

TRIFOLIUM
- repens, var.
- hybridum.
- glomeratum.
- scabrum.
- striatum.
- arvense.
- medium.
- ochroleucum.
- maritimum.
- fragiferum.

HYPERICUM
- humifusum.
- montanum.

PICRIS
- Echioides.

LACTUCA
- virosa.

HIERACIUM
- paludosum.
- murorum.
- umbellatum.

CREPIS
- biennis.

CICORHIUM
- Intibus.

SERRATULA
- arvens. var. 2.

CARDUUS
- eriophorus.
- helenioides.
- acaulis.

ONOPORDUM
- Acanthium.

BIDENS
- cernua. var. 2.

TANACETUM
- vulgare.

GNAPHALIUM
- dioicum.
- rectum.

ERIGERON
- canadense.
- acre.

SENECIO
- viscosus.
- sylvaticus.
- tenuifolius.

ASTER
- Tripolium.

[illegible]

[illegible]

[illegible]

MATRICARIA
maritima.
ANTHEMIS
arvensis.
nobilis.
tinctoria.
CENTAUREA
calcitrapa.
EQUISETUM
hyemale.
LYCOPODIUM
clavatum.
selaginoides.
selago.
alpinum.
OPHIOGLOSSUM
vulgatum.
OSMUNDA
Lunaria.
regalis.
PTERIS
crispa.
BLECHNUM
spicant.
ASPLENIUM
scolopendrium.
viride.
marinum.
Adiant. nigrum.
POLYPODIUM
Phegopteris
oreopteris
fragile.
Dryopteris.
SPLACHNUM
ampullaceum.
POLYTRICHUM
aloides.
alpinum.
MNIUM
sciculare.
fontanum.
heteromallum.
glaucum.
pellucens.
palustre.
arcuatum.
proliferum.
BRYUM
apocarpum.
pyriforme.
paludosum.
striatorium.
hypnoides.
tortuosum.

HYPNUM
adianthoides.
sciuroides.
crispum.
viticulosum.
undulatum.
crista-castrensis.
dendroides.
alopecurum.
myosuroides.
JUNGERMANNIA
epyphylla.
furcata.
pinguis.
asplenioides.
polyanthos.
cochleariformis.
platiphylla.
ciliaris.
LICHEN
albus.
jolithus.
atro-albus.
calcareus.
immersus.
sanguinarius.
muscorum.
confluens.
canescens.
cæruleo-nig.
niger.
Œderi.
geographicus.
sulphureus.
flavo-virescens.
rupicola.
ericetorum. †
Bæomyces. †
byssoides. †
sphærocephalus. †
calvus.
vernalis.
ventosus.
coccineus.
corallinus.
parallus.
concentricus.
punctatus.
scrupolus.
atro-cinereus.
Dicksoni.
pezizoides.
tricolor.
tartareus.
cerinus.
upsaliensis.
luridus.
multifidus.

LICHEN
cartilagineus.
physodes.
centrifugus.
omphalodes.
olivaceus.
gracilis.
radiatus.
cornutus.
globiferus.
tristis.
hispidus.
uncialis.
paschalis.
jubatus.
hirtus.
lanatus.
glaucus.
islandicus.
pulmonarius.
furfuraceus.
glomuliferus.
læte-virens.
caperatus.
scrobiculatus.
plumbeus.
torrefactus.
deustus.
polyrrhizos.
proboscideus.
polyphyllus.
miniatus.
amphibius.
saccatus.
perlatus.
aphthosus.
resupinatus.
horizontalis.
tremella.
granulatus.
nigrescens.
cristatus.
sinuatus.
fasciicularis.
FUCUS
natans.
repens.
esculentus.
sanguineus.
alatus.
loreus.
digitatus.
mamillosus.
lichenoides.
dentatus.
pinnatifidus.
aculeatus.
plicatus.

FUCUS
subfuscus.
variabilis.
CONFERVA
spongiosa.
gelatinosa.
elongata.
pennata.
parasitica.
BYSSUS
æruginosa.
nigra.
aurea.
fulva.
barbata.
MERULIUS
cornucopioides.
membranaceus.
AGARICUS
1. STIPITATI
Species plurimæ.
2. SUBACAULES
ostreatus.
planus.
flabelliformis.
reniformis.
betulinus.
quercinus.
FISTULINA
pectinata.
BOLETUS
nummularius.
nigripes.
subtriclus.
betulinus.
medullæ-panis.
suaveolens.
cryptarum.
labyrinthicus.
heteroclitus.
Sulphureus.
HYDNUM
repandum.
Barba-jovis.
AURICULARIA
auricula.
papyrina.
PEZIZA
punctata.
coccinea.
epidendra.
inflexa.
auricula.
cochleata.
polymorpha.
NIDULARIA
campanulata.
lævis.

CLAVARIA
phacorrhiza.
spathula.
ophioglossoides.
LYCOPERDON
stellatum.
innatum.
epidendrum.
SPHÆRIA
sanguinea.
mori.
mammosa.
fraxinea.
cum multis aliis.

PLANTÆ SEQUENTES apud Sunderland in collibus Ballast Hillers dictis, proveniunt.

PHALARIS
paradoxia.
BROMUS
madritensis.
Hyoscyamus.
albus.
CONVOLVULUS
tricolor.
ŒNOTHERA
biennis.
RESEDA
odorata.
EUPHORBIA
Tithymaloides.
ARGEMONE
mexicana.
NIGELLA
arvensis.
RANUNCULUS
muricatus.
LEPIDIUM
Sativum.
ALYSSUM
incanum.
SCORPIURUS
vermiculatus.
VICIA
benghalensis.
TRIFOLIUM
M. indicum.
MEDICAGO
prostrata.
CHRYSANTHEMUM
Italicum.
CENTAUREA
calcitrapa.
CALENDULA
officinalis.
Solanum
Lycopersicum

[± 42 lichen annotations by Hallman].

PLANTÆ DESIDERATÆ.

CHARA
tomentosa.
VERONICA
alpina.
PINGUICULA
lusitanica.
UTRICULARIA
minor
ORCHIS
militaris.
abortiva.
SATYRIUM
hircinum.
OPHRYS
corallorhiza.
loeselii.
anthropophora.
araniferia.
SERAPIAS
rubra.
LEMNA
gibba.
SALIX
triandra.
myrsinites.
retusa.
lanata.
lapponum.
rosmarinifolia.
CROCUS
sativus, var. β.
ERIOPHORUM
SCIRPUS
pauciflorus.
holoschænus.
romanus.
triqueter.
CYPERUS
acicularis.
longus.
SCHŒNUS
ferrugineus.
fuscus.
rufus.
CAREX
pauciflora.
incurva.
tereticuscula.
clandestina.
recurva.
atrata.
rigida.
stricta.
ampullacea.
SPARGANIUM
natans.
PANICUM
verticillatum.
cruſgalli.
sanguinale.
PHLEUM
nodosum.
MILIUM
lentigerum.
CALAMAGROSTIS
lanceolata.
AGROSTIS
vinealis.
pallida.
alpina.
littoralis.
nigra.
maritima.
minima.
AIRA.
POA
alpina.
angustifolia.
bulbosa.
glauca.
BRIZA
minor.

FESTUCA
rubra.
glabra.
Coliacea.
BROMUS
squarrosis.
erectus.
madritensis.
arvensis.
LAGURUS
ovatus
LOLIUM
bromoides
ELYMUS
europæus.
ERIOCAULON
septangulare.
GALIUM
erectum.
scabrum.
anglicum.
RUBIA
tinctorum.
LITHOSPERMUM
officinale.
CYNOGLOSSUM
sylvaticum
MENYANTHES
LYSIMACHIA
thyrsiflora.
CAMPANULA
patula.
PLYTEUMA
orbicularis.
LOBELIA
urens.
VERBASCUM
thapsoides.
virgatum.
CHIRONIA
pulchella.
RIBES
uva-crispa.
HERNIARIA
hirsuta.
SALSOLA
fruticosa.
ULMUS
montana.
SWERTIA
perennis.
GENTIANA
nivalis.
ECHINOPHORA
spinosa.
TORDYLIUM
maximum.
officinale.
CAUCALIS
latifolia.
DAUCUS
maritimus.
SELINUM
palustre.
ATHAMANTA
libanotis.

PEUCEDANUM
officinale.
LIGUSTICUM
scoticum.
cornubiense.
SIUM
repens
SISON
verticillatum.
SCANDIX
cerefolium.
PIMPINELLA
dioica.
LINUM
tenuifolum.
ALLIUM
ampeloprasum.
arenarium.
TULIPA
sylvestris
ORNITHOGALUM
pyrenaicum.
SCILLA
autumnalis.
bifolia.
verna.
ANTHERICUM
serotinum.
ASPARAGUS
officinalis.
CONVELLARIA
verticillati.
JUNCUS
biglumis.
spicatus.
FRANKENIA
pulverulenta.
RUMEX
paludosus.
ALISMA
damasonium.
natans.
lanceolata.
EPILOBIUM.
alpinum.
ERICA
daboecia.
QUERCUS
femina.
MONOTROPA
hypopithys.
ARBUTUS
unedo.
alpina.
PYROLA
uniflora.
SAXAFRAGA
hirculus.
cernua.
moschata.
SCLERANTHUS
polycarpos.
DIANTHUS
prolifer.
CUCUBALUS
baccifera.
SILENE
conica.
acaulis
STELLARIA
cerastoides.
ARENARIA
media.
juniperina.
laricifolia.
CHERLERIA
sedoides.
COTYLIDON
lutea.
OXALIS
corniculata.

CERASTIUM
latifolium.
pumilum.
SPERGULA
subulata.
CERATOPHYLLUM
submersum.
LYTHRUM
hyssopifolium.
EUPHORBIA
peplis.
stricta.
platiphyllos.
hyberna.
characias.
cyparyssias.
PRUNUS
avium.
CRATÆGUS
torminalis.
SORBUS
domestica.
MESPILUS
germanica.
RUBUS
arcticus.
POTENTILLA
rupestris.
opaca.
aurea.
ACTÆA
spicata.
PAPAVER
maritimum.
somniferum.
CISTUS
guttatus.
salicifolius.
polyfolius.
ZOSTERA
marina.
oceanica.
ANEMONE
pratensis.
ADONIS
æstivalis.
RANUNCULUS
gramineus.
hirsutus.
AJUGA
pyramidalis.
TEUCRIUM
scordium.
GALEOPSIS
grandiflora.
STACHYS
arvensis.
germanica.
MELAMPYRUM
cristatum.
arvense.
ANTIRRHINUM
arvense.
LINNÆA
borealis
LIMOSELLA
aquatica.
OROBANCHE
ramosa.
VELLA
annua.
SUBULARIA
aquatica.
DRABA
stellata.
LEPIDIUM
petræum.
THLASPI
perfoliatum.
montanum.
COCHLEARIA
danica.
DENTARIA
bulbifera.
CARDAMINE
bellidifolia.
petræa.

HESPERIS
inodora.
BRASSICA
campestris
MALVA
pusilla.
ONONIS
VICIA
hybrida.
ASTRAGALUS
uralensis.
TRAGOPOGON
porrifolium.
SONCHUS
canadensis.
LACTUCA
scariola.
saligna.
HIERACIUM
alpinum.
taraxaci.
dubium.
auricula.
prenanthoides
sylvaticum.
villosum.
molle.
HYOSERIS
minima.
HYPOCHÆRIS
maculata.
SERRATULA
alpina.
SANTOLINA
maritima.
ARTEMISIA
campestris.
cæruleſcens.
GNAPHALIUM
luteo-album.
sylvaticum.
supinum.
gallicum.
arvense.
Solidago
cambrica.
lapponica.
CINERARIA
palustris.
INULA
cylindrica.
ANTHEMIS
maritima.
CENTAURIA
solstitialis.
CALENDULA
arvensis.
LYCOPODIUM
annotinum.
ACHROSTICHUM
septentrionale.
ASPLENIUM
alternifolium.
lanceolatum.
POLYPODIUM
arvonicum.
thelypteris.
fontanum.
rhæticum.
TRICHOMANES
pyxedeferum.

[illegible] by Hollins 1794 and Linn. Trans. 2 60 [illegible]

[illegible]

Harriman.[16] The two lists are separate. However, a careful examination of the tear between the two sheets leaves no doubt that they were originally one. It is also noted that some of Harriman's annotations in the lower half of page two run on to the opposite half of the sheet upon which is printed Oliver's *Plantae Desideratae.* I am in no doubt that Harriman separated them (for his own practical purposes). Thus, Oliver's *Plantae rariores...* and *Plantae Desideratae*, as with Robson's, were on a single sheet of paper. They differ only in the respective *Plantae Desideratae*. As Robson and Oliver were the major contributors to *Plantae rariores...*, if authorship is to be assigned, then Oliver deserves as much credit as Robson, even though Robson compiled it. Unfortunately, because of the binding, it has not been possible to photocopy the Oliver and Harriman document. However, as there is a copy of *Plantae rariores...* and Robson's *Plantae Desideratae* in the Bodleian Library, and I have come across a number of copies of Oliver's printed *Plantae Desideratae*,[17] I have been able to reconstruct the Oliver and Harriman document **(pl. 49)**, to which I have added the many annotations, some in summary form. Winch has noted the back of the document, that is, the back of *Plantae Desideratae*, "Mr. Harriman's List - 1800". Oliver and Harriman had parted company by this time.

Before I proceed to the reconstruction of this list, how do I know that this document owes its origin, at least in part, to Oliver and Harriman? I have come across four other copies of Oliver's *Plantae Desideratae*, that is without *Plantae rariores...* One can understand that one might well send several updated copies of one's *Plantae Desideratae* to a botanical correspondent, but one would hardly be updating *Plantae rariores...* so significantly and frequently as to warrant sending him more than one copy. All four copies are annotated in Harriman's hand. In studying Harriman's letters

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[16] W1.191 & W1.192.
[17] Harriman wrote letters on the back of them, clearly to save on postage.

in the Sowerby Correspondence in the General Library at the Natural History Museum, London, I discovered Oliver's *Plantae Desideratae*, which had previously been totally overlooked. In fact, there are three copies here, each differently annotated by Harriman. Harriman has written his letter of 20 November, 1798, to Sowerby on the back of one (**pl. 47**). In this letter Harriman states:

> ...Mr. Oliver & I send about a Score of our Lists of Desiderata a begging, which we will thank you to put into a proper Train. We have furnished a Number with Specimens of our rare Plants either immediately ourselves, or by Means of Mr. Robson; but have had very few in Return added to our Collections. We shall be happy to furnish you or any of your Friend [sic] with Specimens of our rare Plants...[18]

With this letter is one further, very heavily annotated, copy of Oliver's *Plantae Desideratae* (**pl. 48**). The annotations are all Harriman's. Sowerby had clearly retained one copy of each of Oliver's (**pl. 47**) and Harriman's (**pl. 48**) *Plantae Desideratae*. That plate 47 is Oliver's *Plantae Desideratae* is demonstrated as follows. The footnote is in Harriman's hand and is clearly a postscript to his letter on the front of this sheet. "Mr. Harriman" is in Sowerby's hand. Sowerby prominently noted his correspondence with the name of his correspondent. It is not clear if Harriman has made the deletions. He could well have made the deletions in Oliver's copies for Sowerby etc. using Oliver's master copy, especially if, as I believe, Oliver had paid for Harriman's copies. That there are no annotated additions to this *Plantae Desideratae* is clear evidence that it was prepared for printing by Oliver rather than Harriman. There can be little doubt that Oliver's *Plantae rariores...* and *Plantae Desideratae* were printed at the same time as Robson's. This is born out by Harriman having requested a bill from Robson in June, 1798, for the catalogues Oliver and he had had (see below). Moving on to **plate 48**, Harriman has adapted Oliver's *Plantae Desideratae* to meet his much greater requirements! If one compares the *Plantae Desideratae* of Robson, Oliver, and Harriman it would seem that, not unsurprisingly,

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[18] JS ref: 9/A25/f.54.

Robson had a bigger herbarium than either Oliver or Harriman, and that Oliver's herbarium was much bigger than Harriman's. This could mean that Oliver had been collecting a lot longer than Harriman, even, perhaps, in the southern uplands of Scotland in the vicinity of his home in Hawick. However, it could also mean that Oliver's aims in respect of his herbarium were much more modest than Harriman's. It is also noted that, where as forty-eight species have been deleted from Oliver's *Plantae Desideratae*, eighty-eight have been deleted from the *printed* list in Harriman's. It would seem that duplicates were sent to Harriman, and where more than one duplicate of a particular species was sent, Harriman gave one to Oliver. All the deletions in both lists would have been made in the period to November, 1798.

Another copy [19] was sent by Harriman to Sowerby with his letter of 27 December, 1798.[20] Reference has already been made to this letter.[21] I found the fourth copy in the Dawson Turner Correspondence in the Wren Library at Trinity College, Cambridge.[22] Harriman wrote his letter of 1 June, 1803, to Turner on the back of a copy of this *Plantae Desideratae*. The annotations on this copy include a lot of lichens. Apparently, Harriman had sent him a copy previously.[23]

Harriman wrote to Winch on 2 March, 1801, stating:

> ...You have a list of the rarer plants of this neighbourhood given you by Mr. Headlam.[24]

I am in little doubt that this is the Oliver and Harriman **document (pl. 49)**. Further, in a letter to Robson dated 13 June, 1798, Harriman states:

> I will thank you to send me 2½ Yards of dark drab Thickset for a Pair of Breeches, with Moulds to cover for Buttons, & every Thing necessary, but Linings; & a Bill of the Articles, & of the Catalogues which Mr. Oliver & I had...[25]

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[19] JS ref: 85/A72/f.58.
[20] JS ref: 9/A25/ f.57.
[21] Deleted.
[22] DT ref: **2** f.176.
[23] DT ref: **2** f.2.
[24] W1.020.
[25] ER ref: Add. MS 8190.

It was a long time before I realised that the "Catalogues" did not have anything to do with drapery! Thus, there is no doubt that the document in the Winch Correspondence at the Linnean Society which Winch has noted "Mr. Harriman's List - 1800" is *Plantae rariores*...and Oliver's *Plantae Desideratae*, the whole having been heavily annotated by Harriman.

I now want to examine Harriman's annotations to *Plantae rariores*... **(pl. 49)**. Before I do this, I will deal with the red annotations. At the top of page one of *Plantae rariores*... is the following annotation in red: a red cross followed by "Those marked with red Ink, we have applied to Robson for the habitats." Sixty-two printed entries have been marked with a red cross. This is clearly preparatory work for *The Botanist's Guide*. These annotations are most likely to have been made by either John Thornhill or Richard Waugh, joint editors with Winch of *The Botanist's Guide*. Winch received Edward's list of habitats on 6 May, 1803.[26] To turn now to Harriman's (black) annotations. At the bottom of page one of *Plantae rariores*... Harriman has made the following annotations:

> This mark X is put before the Names of such Plants as are found growing near Eglcston. The Habitats of the Plants which are furnished, are requested.

Why did Harriman give the point of reference for the list as Eggleston? We have seen how large is the area above and below Middleton-in-Teesdale covered by the list. It was clearly because he was living in Eggleston when he annotated the document. However, there is more to it than meets the eye! In a letter to Sowerby dated 4 September, 1798, Harriman states:

> ...As all the Lichens of which we [Oliver and Harriman] sent you Specimens, grow near Egleston, and most of them in great Plenty; Dr. Smith may probably think it sufficient to say, that they were gathered in the Neighbourhood of Egleston, agreeably to his common Practice in English Botany...[27]

Further, in a letter to Sowerby dated 4 June, 1799, Harriman states:

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[26] W1.190.
[27] JS ref: 9/A25/f. 51.

> ...I shou'd be sorry...to see the Practice dropped, of mentioning the Persons whose Specimens of more rare Plants you figure, because it gives Information of whom Specimens of such Plants may be had...[28]

Thus, Harriman gave Eggleston as the point of reference so that any botanists wanting duplicates of plants in *English Botany* from Teesdale or *Plantae rariores...* would apply to *him* for them. In this way he built up a network of botanical correspondents who helped him with his *desideratae*. So successful was he in this endeavour that the cost of postage almost made him give up botany.[29] When he did in fact give up botany, he did, of course, succeed in getting his "correspondents pretty well shaken off..." [30] As will be discussed later, Oliver parted company with Harriman in April, 1799.

Harriman has put a black "X" against 159 of the printed vascular plants in *Plantae rariores...*, and 71of the 81 printed species of lichen. No other groups of c*ryptogams* in the list have black crosses against them, which is consistent with what I know of Oliver and Harriman and their botanical activities at this time. It will be remembered that *Plantae rariores...* includes only the *rarer* plants of County Durham. So more than 159 species of vascular plants will have been recorded "near Egleston" prior to 1 May, 1798. *Plantae rariores...* includes plants recorded from Yorkshire and Westmorland, as well as County Durham. This might suggest that Oliver simply gave Robson his complete plant list for Upper Teesdale without deleting the non-County Durham species. Alternatively, in that *Plantae rariores...* is a list of duplicates, Robson may have decided to leave them in. Only six of the plants in the printed list have both a red and a black cross against them, and only one of these, namely

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[28] JS ref: 9/A25/f.61.
[29] Letter from Harriman to Smith dated 30 November, 1803. JES ref: 22 f.165.
[30] W2.062. Letter from Harriman to Winch dated 31 August, 1807.

Rhodiola rosea [31] (*Sedum rosea* (L.) Scop.) is a Teesdale rarity. Evidently, Thornhill or Waugh wanted to check the actual site for this plant which, in fact, had been recorded from Maizebeck Scar near High Cup Scar in Westmorland. It will be recalled that Winch later asked Harriman for "a catalogue of [your] more rare plants", that is, a list of sites.[32] Edward gave the site as "Above Middleton - but I believe on y^{e} Yorks - side of y^{e} river." [33] Harriman has added, in manuscript, twelve species to *Plantae rariores*... However, as my objective is to reconstruct the list which Oliver and Harriman gave Robson for him to compile *Plantae rariores*..., these twelve species will be ignored for the moment, and discussed later in the context of the Teesdale rarities discovered in the period after *Plantae rariores*... was printed.

It will be evident that Oliver and Harriman's list for *Plantae rariores*...consisted of all those printed entries with a black cross against them, that is, 159 species of rarer vascular plants and 71 species of lichens. Oliver would have been able to identify all but seven of the 159 vascular plants from his Lightfoot. Reference has already been made to *Viola lutea* (plus see below), *Gentiana verna, Potentilla fruticosa, Helianthemum canum* and *Bartsia alpina. Thlaspi alpestre* (*T. caerulescens* J.S. & C. Presl) is not in Lightfoot, 1777. It is a Teesdale rarity which appears early in *English Botany* (Sowerby, 1793 **II**: *t.* 811 January, 1793), and is missing from Edward's herbarium.[34] The labelling on this sheet would, no doubt, have shed light on its discovery. It is often associated with lead mines! No doubt it was, therefore, an early discovery in Upper Teesdale. *Thalictrum majus* (Sowerby, 1799 **IX**: *t.* 611 July 1, 1799) was first noticed in the British Isles by Robson (Withering, 1796: 502), after

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[31] Of the Harriman and Oliver plants included in *English Botany* in only this case does Oliver's name precede that of Harriman's in Smith's letterpress (in Sowerby, 1799 **VIII**: *t.* 508 (dated November 1, 1798)). Did Harriman not have details of the site for this plant?
[32] W1.052. Letter from Harriman to Winch dated 31 May, 1802.
[33] W1.190. List received by Winch 6 May, 1803.
[34] Edward's set of Smith's *Flora Britannica* is in my personal possession. It is evident that he used it as a catalogue of his herbarium. *T. alpestre* on p.686 is ticked.

Lightfoot was published in 1777. It is no longer recognised as a distinct species. Robson has used the nomenclature of Withering (1796) for the lichens. I have not attempted the difficult nomenclatural task of comparing the names of the 71 species of lichen in *Plantae rariores...* marked with a black cross by Harriman, with Lightfoot (1777). We are concerned with the Teesdale vascular plant rarities as determined by Pigott (1956: 580-581), Bradshaw (1970: 142) and myself. Of the 159 species of vascular plant, 36 are Teesdale rarities and are listed below. The list is in the same order as *Plantae rariores...*, that is, in Linnaean order, and employs the same names. Where the current name is different, that name is given in brackets after the old name.

Orchis bifolia (*Platanthera bifolia* (L.) Rich.).
Satyrium albidum (*Pseudorchis albida* (L.) A.& D. Löve).
Ophrys cordata (*Listera cordata* (L.) R. Br.).
Malaxis paludosa (*Hammarbya paludosa* (L.) Kuntze).
Sesleria cerulea [sic] (L.) Ard.
Galium boreale L.*
Plantago maritima L.
Primula farinosa L.
Gentiana verna L.
Statice Armeria (*Armeria maritima* (Miller) Willd.).
Juncus triglumis L.
Tofieldia palustris (*T. pusilla* (Michaux) Pers.).*
Epilobium angustifolium (*Chamaenerion angustifolium* (L.) Holub).*
Polygonum viviparum (*Persicaria vivipara* (L.) Ronse Decraene).*
Rhodiola rosea (*Sedum rosea* (L.) Scop.).
Saxifraga stellaris L.*
S. aizoides L.
S. hypnoides L.*
Arenaria verna (*Minuartia verna* (L.) Hiern).*
Sedum villosum L.*
Rubus chamaemorus L.
Potentilla fruticosa L.*
Dryas octopetala L.
Cistus marifolius (*Helianthemum canum* (L.) Baumg. subsp. *levigatum* M. Proctor).
Thalictrum alpinum L.
Trollius europaeus L.
Bartsia alpina L.*
Thlaspi alpestre (*T. caerulescens* J. S. & C. Presl).
Draba incana L.
Cochlearia groenlandica (*C. pyrenaica* DC.).
Geranium sylvaticum L.
Anthyllus Vulneraria [sic] L.
Carduus helenoides (*Cirsium heterophyllum* (L.) Hill).
Gnaphalium dioicum (*Antennaria dioica* (L.) Gaertner).
Pteris crispa (*Cryptogramma crispa* (L.) R. Br. ex Hook.).*
Asplenium viride (*A. trichomanes-ramosum* L.).

Of these 36 Teesdale rarities, we know from my introduction that Ralph Johnson first discovered eleven of them in Upper Teesdale. These are marked with an asterisk in the above list. However, only one of his records from Upper Teesdale has come down to us, namely, *P. fruticosa* at High Force. This record appeared in John Ray's *Synopsis Methodica Stirpium Britannicarum*, 1690 (p.91),[35] over the name of Thomas Lawson (1630-1691), and has only recently been recognised as having been made by Johnson (Horsman, 1995:164). Of the ten other records made by Johnson, nine were never published and that for *T. pusilla* appeared anonymously in Bishop Edmund Gibson's (1669-1748) second edition of William Camden's *Brittania*, 1722 (column 962) (Horsman, 1995:163-164,166). Johnson also discovered *Betula nana* L. in Upper Teesdale. The record appeared with his record for *T. pusilla* in Camden's *Brittania* (Horsman, 1995:163,166), again anonymously. However, *B. nana* was not rediscovered in Upper Teesdale until 1965 (Hutchinson, 1966), hence it not being in the above list. Johnson's pioneering botanical work in Upper Teesdale has only just been recognised by the identification of one of his botanical notebooks (Horsman, 1995), and the identification of (some of?) his botanical records for Upper Teesdale in Christopher Hunter's (1675-1757) botanical notebook (Horsman, in prepn.). That the floristic recognition of Upper Teesdale did not come about earlier than the end of the eighteenth century was because an interregnum followed the death s of Ray and Johnson during which an appreciation of nature gave way to the age of reason. The floristic recognition had to await the resurgence of nature over reason (Horsman, 1995).

We have seen that both Backhouse Snr. and Backhouse Jnr. were unaware of the record for *P. fruticosa* at High Force in Ray's *Synopsis Methodica Stirpium*

Britannicarum. Because Oliver only had Lightfoot's *Flora Scotica,* he would also have been unaware of Johnson's earlier record, until either Robson informed him, or he saw it himself in Withering's *British Plants*, 1796. However, Harriman will have known *P. fruticosa* from its sites on the River Tees near Barnard Castle (Ray, 1690: 91; 1696: 142, & 1724: 256). Further, he will almost certainly have known of Johnson's record from Upper Teesdale from Cleasby's botanical books,[36] before he himself botanised in Upper Teesdale. As far as Oliver is concerned, he started botanising in Upper Teesdale completely unaware of Johnson's seventeenth century records. Upper Teesdale was virgin country botanically to him. He is, therefore, just as much a botanical pioneer as Johnson. The cultural climate in Britain at the end of the eighteenth century, unlike that at the end of the seventeenth century, was sympathetic to the study of nature. Therefore, whereas Johnson's work was lost, until recently, Oliver and Harriman's succeeded in bringing about the floristic recognition of Upper Teesdale.

We know that Stephen Robson and John Bailey refound *P. fruticosa* at High Force, as did Robson. Robson also found *G. boreale* at High Force. As Robson did not visit High Force until the early 1790's, I am in little doubt that Oliver recorded the plant here prior to Robson. My drive in this research has been to establish the particular roles of Oliver and Harriman in the botanical discovery and floristic recognition of Upper Teesdale. It is my contention that it was Oliver who discovered almost all the plants in the above table. How do I support this contention? My evidence is as follows.

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[35] Plus the 1696 and Dillenian 1724 editions.
[36] For example, *Withering's Botany* (1787: 531).

We have seen that Robson sent Sowerby a copy of his *Catalogus Plantarum rariarum circa Darlington sponte nascentium* on 1 November, 1795. He has annotated the catalogue:

> And many more found since printing the above.[37]

On 19 January, 1792, Robson had informed Sowerby that:

> ...I have a tolerable Collection of dried Plants, but having got what this Neig[d]. produces I can now only increase it by the assistance of my friends.[38]

Thus, Robson had apparently made a thorough botanical survey of the Darlington area. That being the case, how was it that " many more " plants had apparently been found in this same area in the short period from the date of the Darlington Catalogue, namely, 1 June, 1794, until 1 November, 1795? We have seen that in the introduction to his *Plantae Dunelmenses* dated 22 May, 1794, Robson invited members of the Darlington Natural History Society to contribute to "...a compleat Catalogue of its [County Durham's] vegetable productions..." If the discovery of many more plants was a response to this plea by Robson to the Darlington Society, then, given that Robson knew the Darlington area so well botanically, the plants must have been found outside that area. We know that Harriman was licenced to the curacy of Eggleston on 22 September, 1795. It is, therefore, possible that Robson's statement: "many more plants found since printing the above" is a reference to Oliver's discoveries in Upper Teesdale. Eggleston was a chapel of ease to Middleton-in-Teesdale, where Oliver lived and was involved with the church. As we have seen, botanists were thin on the ground in this area then. Harriman arrived at Eggleston as a botanist, probably aware of Robson's plea. There can be little doubt that he would soon make contact with Oliver, despite not actually moving to Eggleston until July, 1796. One can imagine how keen Harriman would be to let Robson know about Oliver's finds, even though

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[37] JS ref: 16/A48/f.78.
[38] JS ref: 16/A48/f.77.

the collection of fresh (recent) material would have to await the new field season in 1796! However, one cannot rule out that the botanists in the Darlington Natural History Society may have responded to Robson's plea with new plants from more distant parts of County Durham, for example, from the lowland on the east side of the county. So Robson's reference to additional plants may be a reference to Oliver's finds in Upper Teesdale, finds made by members of the Darlington Natural History Society, or both. It is possible that Harriman communicated Oliver's finds to Robson at this time through his indirect connection with the Darlington Natural History Society, as discussed earlier.

I now want to consider the botanical activities in Upper Teesdale in 1796. In a letter to Sowerby dated 4 September, 1798, Harriman states:

> ...You ask me if I did not send you Specimens of Lichen ventosus some Time since? Mr Oliver & I sent you Specimens of that Plant last Year, and along with them Specimens of Viola tricolor, Rubus Chamaemorus, Dryas octopetala, Lichen miniatus, polyphyllus, proboscideus, polyrhizos, torrefactus, tristis, & deustus: & the Year before last, Specimens of Bartsia alpina, Narthecium ossifragum,[39] Tofieldia palustris, Sedum villosum, Arenaria verna, Lichen islandicus, Draba incana, Cistus marifolius, Dryas octopetala, & Lycopodium Selaginoides... [40]

In *English Botany* (Sowerby, 1797 **VI**: *t.* 361 dated December 1, 1796) we read of *Bartsia alpina*:

> The wild recent specimens of this very rare plant, from which our drawing was taken, were gathered July 27, 1796, near Middleton in Teesdale, Durham, by the Rev. Mr. Harriman, and Mr. Oliver surgeon, of Middleton, and sent us by our liberal correspondent Mr. E. Robson...

Sowerby has annotated his drawing of *B. alpina* (Garry, 1904 Supplement: 132-133):

> Sent by Ed. Robson, of Darlington, with some other plants gathered by the Revd. Mr. Harriman and S.[sic] Oliver, surgeon, Middleton; gathered July 27, 1796, in the neighbourhood of Middleton in Teesdale, in the west part of Durham.

Of *Sedum villosum* we read in *English Botany* (Smith in Sowerby, 1797 **VI**: *t.* 394 dated May 1, 1797):

> This is one of those rare north-country plants which we should have no chance of procuring, but for the kind assistance of our Friends. We are indebted for it to the same gentlemen who sent Bartsia alpina, see t.361...

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[39] Sowerby's drawing of *Tofieldia pusilla* for *English Botany* bears the following annotation by him: "to be fig'd. with N. ossifragum." He has crossed/rubbed out this annotation.
[40] JS ref: 9/A25/f.51.

The drawing is annotated by Sowerby (Garry, 1904 Supplement: 75):

> Rev. J. Harriman and J.[sic] Oliver, Surgeon; gather[ed] in the neighbourhood of Middleton and [sic?] Teesdale, west part of Durham, July, 1796.

And of Lycopodium (Selaginella) selaginoides we read in *English Botany* (Smith in Sowerby, 1803 **XVI**: *t.* 1148 dated April 1, 1803):

> ...We...have rec'd it from near Middleton in Teesdale by favour of The Rev. Mr. Harriman, Mr. Oliver & Mr. Robson.

Sowerby has annotated his drawing (Garry, 1904 Supplement: 261):

> The Revd. J. Harriman and J.[sic][41] Oliver, surgeon, gathered the specimens in company in the neighbourhood of Middleton, Durham, 1796.

I have examined all Sowerby's drawings for *English Botany*. In the case of the drawing of *Selaginella selaginoides*, "Sent by Mr. Robson" has been tucked under. Also, "...in company..." is written as "... " in comp „ ..." There can be little doubt that this is a quotation from Edward's letter. The reference to "in company" confused me for a long time. Earlier in my research I thought that Binks could have been acting as a botanical guide for both Harriman and Oliver. However, my later research ruled this out. I note the following references by Ray (1724:310): "...(About two Miles before you come to Alton, from Ashton, by the Hedge of a Copse; Mr. *Sherard* and Mr. *Rand* in Company.)" and Lees (1888:344): "I do not know who first actually detected this plant on Malham Moor, and have been unable to find any record telling me whether Wilson first found it and showed it to Borrer, or whether first seen by the two in company." I am left in no doubt that "in company" in this context simply means together.

Of the ten plants which Oliver and Harriman sent up for *English Botany* in 1796, three more, making a total of six, [42] are referred to in that work, namely:

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[41] I am confident that either Sowerby misread Edward's W for a J and an S, or Garry has similarly misread Sowerby's W. Knowing the writing of both, I think the latter is more likely. There is absolutely no doubt that William Oliver is intended.

Arenaria (*Minuartia*) *verna*

Smith states in the letterpress (Sowerby, 1799 **VIII**: *t.* 512 November 1, 1798) that specimens from Derbyshire were used for Sowerby's figure. However, " We have rec'd others from Wales and Durham by favour of Mr. Griffith & Mr. Robson..." Sowerby has also annotated another sketch, not used for the plate, " 1794, Smith; 1796, Robson " (Garry, 1904 Supplement: 35).

Cistus marifolius (*Helianthemum canum*)

Smith (Sowerby, 1797 **VI**: *t.* 396 **May 1, 1797)** states that " We received it from Mr. Robson " Sowerby's annotation simply reads " Cistus anglicus, marifolius, Linn. Robson " (Garry, 1904 Supplement: 26).

Tofieldia palustris (*pusilla*)

In the letterpress Smith (Sowerby, 1799 **VIII**: *t.* 536 January 1, 1799) states " It has not 'til lately been known to grow in England but our wild specimen was sent by Mr. Robson from the County of Durham "

I am in no doubt that Robson sent up *M. verna*, *H. canum* and *T. pusilla* on Oliver and Harriman's behalf, as he did with *B. alpina*, *S. villosum* and *S. selaginoides*, and that he made this perfectly clear in his accompanying letter. There is no reference to Oliver and Harriman in the letterpress in *English Botany* for *M. verna*, *H. canum* and *T. pusilla*. I believe the explanation is that their *M. verna* gathering was not actually used, and, for whatever reason(s), Sowerby simply did not annotate his drawings with any reference to them. Nevertheless, Harriman, on seeing *English Botany*, insinuated

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[42] The other four were *Draba incana* (1797 **VI**: *t.* 388 July 1, 1797), *Dryas octopetala* (1798 **VII**: *t.* 451), *Narthecium ossifragum* (1799 **VIII** *t.* 535 January 1, 1799) and *Lichen islandicus* (1804 **XIX**: *t.* 1330 July 1, 1804). From Smith's letterpress it is evident that *D. incana* was not used because a particularly luxuriant specimen had already been received; *D. octopetala* had also already been received, as discussed in the text; *N. ossifragum* could be obtained locally by Smith in Norwich, and *L. islandicus*: " ...We have gathered it on the Pentland hills near Edinburgh, Ben Lomond, &c...and have received it from Durham, but have been obliged to draw the fructification from foreign specimens. "

that Robson had taken the credit for these discoveries! [43] This says far more about Harriman than Robson.

We know that Oliver and Harriman gathered *B. alpina* in Upper Teesdale on 27 July, 1796. A comparison of Sowerby's annotations on his drawings of *B. alpina* and *S. villosum*, as quoted above, leaves little doubt that *S. villosum* was also gathered on this excursion. For the following reasons, I believe that *S. selaginoides* was also gathered on 27 July, 1796. It was gathered by Oliver and Harriman together, and sent up by Robson, and further it was gathered "...in the neighbourhood of Middleton..." in 1796. I am in little doubt that Sowerby's annotations in each of these three cases, and *M. verna*, *H. canum*, and *T. pusilla*, owe their origin to the letter which Edward enclosed with the specimens. Thus, Harriman was with Oliver on the botanical excursion into Upper Teesdale on 27 July, 1796. When were the other plants which were sent up fresh in 1796 gathered? This knowledge might shed some light on whether the botanical excursion on 27 July, 1796, was Harriman's first into Upper Teesdale. If this was indeed the case, it adds weight to Oliver having discovered most of the Teesdale rarities, as will be shown later.

In order to attempt to answer this question, Robson's herbarium has been carefully examined. A copy of a typed list of the plants in Robson's herbarium is in my possession. It was prepared by Sunderland Museum in 1976 (P. S. Davis, pers. comm.). It includes approximately 570 species. I have compared this list with the catalogue of Robson's herbarium prepared by himself which is in my possession. The catalogue shows that Robson had approximately 1130 species of vascular plants in his herbarium. Thus, half the herbarium sheets were apparently missing when the

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[43] Letter from Harriman to Sowerby dated 5 February, 1799. JS ref: 9/A25/f.59.

herbarium came into the museum's possession on 26 October, 1893! [44] **Plate 50** shows copies of the labels attached to the plants which Oliver and Harriman are known to have sent Robson in 1796. One point struck me immediately. Whilst there are Harriman specimens in Robson's herbarium, there are no labels in his writing. Conversely, I have come across ten labels in Robson's herbarium with Oliver's writing. Seven are included in plate 50.[45] The most obvious feature of these labels is the numbered sequence 3, 6, 9, and 19. In each of these four cases the name of the plant and the number is in Oliver's handwriting. Robson received numbers 3 and 9 in August, 1796. It is, therefore, reasonable to assume that he also received number 6 in August, 1796. Robson has annotated number 19 "Middleton 1796". I am in little doubt that he also received number 19 in August, 1796. Robson has also annotated number 9: "Near Middleton. From W. Oliver, Surgeon. VIII 96". I conclude that this was Oliver's first direct communication with Robson. One has to be careful in interpreting Robson's writing on these labels because I believe some of it was done retrospectively. It is tempting to go further than the evidence strictly permits in interpreting these labels; for example, which labels were written with the same quill and, therefore, probably at the same time? However, the evidence is insufficient to make such conclusions anything other than speculative. Nevertheless, it is my contention that Oliver sent Robson gatherings of at least 19 different plants in August,

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[44] On p.43 of the Sunderland Museum Accessions Register is recorded the donation of " British Herbarium, Fossils, Minerals & Shells " by " Misses Robson The Esplanade (Sund [Sunderland]) " on 26 October, 1893. Davis (1980: 9) confirms that this is Edward Robson's herbarium. The "Misses Robson" were Edward Robson's great-granddaughters, Priscilla Maria and Emma Dorothy (A. W. Legg, pers. comm.).

[45] The other three are "Berberis communis Hillbeck Wood near Brough Westmorland"; "Rhamnus catharticus male plant Hillbeck Wood near Brough We [Westmorland]", and "Some of this bear [sic] a striking resemblance to the Chrysalis of an Insect. Sphaeria tremelloides [a fungus]". It has not proved possible to date the *B. communis* and *R. catharticus* gatherings. Suffice it to say that the water mark on the paper Edward has used to mount the *B. communis* gathering is 1796. With regard to the fungus, in a letter to Sowerby dated 5 February, 1799 (JS ref: 9/A25/f.59), Harriman states: "...We [Harriman and Oliver] thought the Shields upon the Piece of Birch Bark, were Nide [nests] of some Insect, as we had seen some not unlike them upon Gooseberries & Gooseberry Leaves, & also

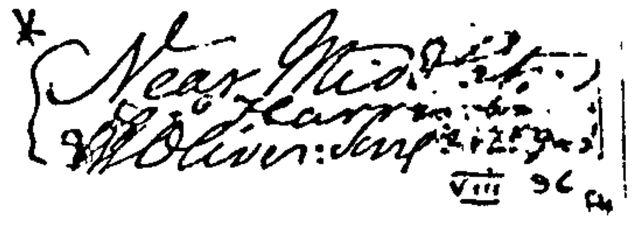
Plate 50. Some labels from the herbarium of Edward Robson. Sunderland Museum.

No 7
Near Middleton
From D. Oliver VIII. 1796

A.

Near Middleton in Teesdale
G. Harriman & D. Oliver
VII. 1796

B.



B.

No 1. Curtis. 6/1784.
2. Nr. Middleton
G. Harriman
& D. Oliver VII 1796

C.

Kentish Alpine
No 3 — Nr. Middleton
From D. Oliver
VIII 1796

Cistus marifol. L. Var. B
Cistus Guttatus
Near Middleton
No 6 From D. Oliver - 96

Vaccinium Oxycoccus
No 9 — Near Middleton
From D. Oliver, Surgeon. VIII 96

Pomum de Cinnamon
No 19 — Middleton
1796

Gathered near Middleton & Dr. Oliver 1796
Leucanthemum Vulgare

Scabiosa Columbaria
N. Middleton

Rubus saxatilis
G. D. O.

From G. Harriman with a
Parasitical Plant upon it
Aug 1796

D.

Hypericum viride
From G. Harriman Aug 1796

A. Dryas oct. petala.
B. Rubus chamaemorus.
C. T. Fistulosa pusilla.
D. Vaccinium oxycoccus.

1796. Amongst them were *B. alpina, H. canum* (*Cistus anglicus*), *Vaccinium oxycoccus* and *Cryptogramma crispa* (*Osmunda crispa*) **(pl. 50)**. Where the gatherings were intended for *English Botany* Oliver clearly sent enough for Robson to retain some for his own herbarium. I have stated that Oliver and Harriman gathered *S. villosum* on their 27 July, 1796, excursion. The label for this plant in **plate 50** is written in Oliver's hand and Robson has added: "N^{r}. Middleton". Why is it not numbered? Similarly, the *Rubus saxatilis* label is in Oliver's hand and Robson has added: "N^{r}. Middle[ton] from D^{r}. O." I believe that Oliver sent Robson *R. saxatilis* and *S. villosum* at the same time, namely, in August, 1796. So, again, why is *R. saxatilis* not numbered? I am not convinced that Robson has simply cut away Oliver's numbers in making these two labels. Was it something to do with their being two lots of gatherings in some cases, namely, one for *English Botany* and the other for Robson? Here we are really into the realms of speculation! The only other label in plate 50 carrying Oliver's writing is that for *Arenaria* (Minuartia) *verna*. The plant name is in his writing, which it will be noted is underlined. It is also evident that Robson has cut off some of Oliver's writing on the lower edge of the label (including the number?). How frustrating! Robson has annotated the label "Gathered near Middleton from D^{r}. Oliver - 1796". This annotation brings to mind Sowerby's annotations on his drawings of *B. alpina, S. villosum, and S. selaginoides* from Oliver and Harriman. I am in little doubt that Robson received *M. verna* from Oliver in August, 1796. Before I leave August, 1796, I would draw attention to the label in **plate 50**, in Robson's hand, which reads: "From J Harriman, with a Parasitical Plant? upon it 8m^{o} 1796". The host (?) plant is *Vaccinium oxycoccus*. This is the only gathering from Harriman dated August, 1796, in Robson's herbarium. It has been

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upon Oak Leaves..." There seems little doubt that the specimen in Edward's herbarium labelled by Oliver was sent to Edward some time just before Harriman wrote to Sowerby in February, 1799.

noted that Oliver sent Robson *V. oxycoccus* in August, 1796 (number 9). That Harriman sent his gathering at a different time from Oliver is, I think, born out by the different styles of dating, namely, " 8m° " and " VIII ". I conclude that the box of gatherings which Robson received from Oliver in August, 1796, after his and Harriman's excursion into Upper Teesdale on 27 July, 1796, can be entirely credited to Oliver.

I now want to consider the plants which Oliver and Harriman sent to Edward in June and July, 1796. To consider the June plants first. The relevant labels in pl.k 50 read: "Potentilla fruticosa Near Middleton in Teesdale. VI. 1796" and, for *Dryas octopetala*: "N° 2 [a reference to one of four separate gatherings on the sheet] Near Middleton. From D^r^ Oliver VI [altered from VIII]. 1796". Both labels are entirely in Robson's hand. I thought at first that Robson had gathered *P. fruticosa* himself near Middleton-in-Teesdale in June, 1796. However, I think a name is omitted from the label simply because, as we know, both Robson and his Uncle Stephen Robson knew the plant from High Force near Middleton-in-Teesdale. There is no evidence to corroborate Robson having visited Upper Teesdale in 1796. *P. fruticosa* also grows near Barnard Castle. I am sure Harriman would have known it before he moved to Eggleston. With regard to the *D. octopetala* label (was the same quill used as for the *P. fruticosa* label?), why is Oliver referred to as "D^r^ Oliver" when, as we have seen, in August,1796, Robson referred to him as "W. Oliver, Surgeon"? I believe that, quite simply, Robson knew Oliver only by his courtesy title of " D^r^ " Oliver until Oliver first wrote to him in August, 1796. He apparently didn't even know his first name or his initial. On the labels written by Robson for the few gatherings Oliver sent him after 1796,[46] Oliver is, as one would expect, mostly referred to as "Dr. Oliver". However,

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[46] As referred to earlier, Robson visited Upper Teesdale with Oliver and Binks in June, 1798. There are seven gatherings made by Oliver in 1798 in Robson's herbarium.

he is also referred to as "W. Olliver [sic]" (1797) **(pl. 19)** "W.O.", "Dr. O.", "Dr. W. O.", and "D. Oliver." [47] Robson always refers to Harriman as either " Harriman " or "ИHarriman". Before I give my interpretation of the Jul, 1796... labels, I want to consider the *Gentiana verna* (spring gentian) label in **plate 51**. Again, all the writing is in Robson's hand. The label reads : "G: verna N^r. Middleton 96 from J Harriman." I believe that Edward added "G: verna" later, when the plant had been identified. In a long footnote to a letter to Sowerby dated 8 July, 1800, Harriman makes the following statement, which I will return to:

> ... I told you in a former Letter that I had seen Root Leaves of this Gentian [*G. verna*] in Yorkshire in 96,...[48]

The specimen on this sheet in Robson's herbarium is in flower **(pl. 51)**. What Harriman clearly meant is that he only saw the "root leaves" of *G. verna growing* in 1796, that is, he did not see a single growing plant in flower in that year. My scenario is as follows. As mentioned earlier, I believe that Binks gathered *Lichen islandicus* from the outlying Meldon Fell in 1796. This plant was sent up through Robson for *English Botany* in 1796, as we have seen. I believe that Binks was similarly gathering other botanical specimens in Upper Teesdale for Oliver at this time, Binks having entered into a "mutual arrangement" with Oliver. Robson was only in touch with Harriman at this time. I believe Robson told Harriman which of the plants Oliver had discovered in Upper Teesdale had not yet been figured in *English Botany*; Harriman told Oliver, and Oliver briefed Binks. I have indicated earlier that Oliver already had a herbarium, and he would, therefore, have been able to demonstrate to Binks the plants he wanted. Binks would have brought the plants down to Oliver who would have passed them to Harriman who, in turn, would have sent them to Robson. If

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[47] We have seen that, in his correspondence with Sowerby in 1797, Edward refers to Oliver as " W^m. Oliver ".

[48] JS ref: 9/A25/f.72. There is no trace of the original letter.

Plate 51. The sheet of *Gentianella amarella* with one (originally two) specimen of *Gentiana verna* in Edward Robson's herbarium. Sunderland Museum.

Gentianna Amarella.

Oliver annotated his flora, a not uncommon practice then,[49] he could simply have loaned it to Robson so that he would know of his botanical discoveries in Upper Teesdale. Alternatively, he may have simply given Robson a list through Harriman (who added the Barnard Castle records). I have already commented on Oliver and his list making as a surgeon apothecary.

To move on to July, 1796. Here we are considering three labels in pl-fr 50. All three labels are written entirely in Robson's hand. The first is for *Tofieldia pusilla* and reads: "[No] 2. N[r] Middleton from J Harriman [No] 3. D[r]. Oliver VII 1796" (was this label written with the same quill as the label for *D. octopetala*?). It is not clear from this label if "J Harriman" has been squeezed in between the second and third lines. The second and third labels are for *Rubus chamaemorus.* Robson's first label for this sheet read: "Near Middleton from J Harriman & W Oliver: Surg[n]. VIII 96". That "from J Harriman" has been squeezed in between the first and third lines and "&" inserted in front of the "W" is clear. Robson amended this label by sticking another one over it (I separated them). The amended label reads: "Near Middleton in Teesdale from J Harriman & D[r] Oliver VII. 1796". I am satisfied that the June pattern applies to *T. pusilla*. However, Harriman, or Binks for Oliver and Harriman, may have gathered *R. chamaemorus.* It will be recalled that the only record made by William Hutchinson of Eggleston in Robson's *Plantae Dunelmenses* is of *R. chamaemorus* growing "near Egglestone..." Hutchinson may have told Harriman about this record. In a long letter to Sowerby dated 4 June, 1799, Harriman states;

> ...I hope you will not omit to mention the crenate Petals of Rubus chamaemorus which I do not recollect to have seen noticed by any Author. I think one may say safely, that ¼ of the Plants of this Species, which grow upon Knoutberry Fell, have crenate Petals." [50]

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[49] We have seen that Winch loaned Turner his annotated Withering, 1796, for *The Botanist's Guide through England and Wales.* Winch heavily annotated several of the botanical works in his library. These are now in the library of the Linnean Society.
[50] JS ref. 9/A25/f. 61.

Thus, according to this scenario, Harriman made no botanical excursions into Upper Teesdale prior to his excursion with Oliver on 27 July, 1796. That this was indeed the case is shown by the fact that Harriman only saw the "root leaves" of *G. verna* growing in 1796.[51] Elkington (1963:755, 765) states of *G. verna*:

> ...Small evergreen herb... Plant with a short stock and a varying number of short underground stolons each ending in a rosette of leaves [Harriman's "root leaves"]...In mature plants, buds become evident in March... Flowering generally takes place during the latter part of April and in May. After flowering the pedicels elongate [52] and the capsules mature in June and July when the seeds are shed. Maximum shoot growth takes place after flowering has finished.

Harriman's only having seen the "root leaves" in 1796 is consistent with a visit in July, 1796. Had Harriman visited Upper Teesdale prior to July, 1796, he would have seen *G. verna* in flower. I have seen it still in fresh flower in Upper Teesdale on 14 June. There is no evidence that Harriman made a further botanical excursion into Upper Teesdale in 1796 after 27 July, 1796. The only other gatherings that Harriman sent Robson in 1796 were *Asplenium viride* (see **pl. 50**), an easily identifiable fern, and *Cyathea fragilis* (*Cystopteris fragilis*). The latter is labelled: "From J. Harriman. 10 M°. 96", that is, almost identically to *A. viride*. Both labels are in Robson's hand. It will be noted that no site is given for either plant. It is possible, therefore, that these gatherings were made in Cumberland on Harriman's annual visit home to Maryport. Harriman refers to Upper Teesdale as "...a very wild Country..." [53] He would not, therefore, have ventured into it in 1796, the year of his moving to Eggleston, without Oliver or a guide. However, he could not afford to pay Binks. In the light of all the foregoing, I am satisfied that Harriman made his first botanical excursion into Upper Teesdale led by Oliver, on 27 July, 1796.

That Harriman made an annual trip home to Maryport each year, which constituted his holiday, is clear from his correspondence. This trip lasted for up to five weeks and

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[51] JS ref. 9/A25/f. 72.
[52] See plate 16.

commenced around August. There is no reason to suppose that he did not make it in 1796. That he made it in 1797 is verified by the following label in Robson's hand in Robson's herbarium: "From J. Harriman for M. [Melampyrum] sylvaticum gathered at Lowdore [Cumberland] 97". My scenario is that Harriman arrived in Eggleston in July, 1796, visited Upper Teesdale on 27 July, 1796, and then went on holiday in August, 1796 for up to five weeks. When he returned the flowering season would be over. So, in terms of the actual discovery of the Teesdale rarities in Upper Teesdale in the period up to and including 1796, Harriman's impact was negligible. To further corroborate this statement, I will now verify that Harriman did indeed return home to Maryport each summer for his holidays. I have dealt with 1795, 1797 and 1801: 1796 is the key year, for which I have no direct evidence. I have evidence for 1798, 1799, 1800 and 1802. To consider 1798 first. Robson sent Sowerby *Brassica monense* from " My garden " on 15 August, 1798.[54] On 7 March, 1799, Robson wrote to Sowerby: "...The Brassica monense last sent was not wild, but the individual root was got me by J. Harriman f^m. the sea shore near Maryport Cumberland w^ch. circumstance might be noticed, if you figure it. " [55] There can be little doubt that Harriman collected the root in 1798. On 8 July, 1800, Harriman wrote to Sowerby: " ...You desired me last Summer to send you fresh Specimens of Arbutus Uva-ursi & of Melampyrum sylvaticum, those which Mr. Oliver & I had formerly sent you having been spoiled. I was then at Maryport & when I returned hither, they were both out of flower..." [56] With regard to 1800, Harriman wrote to Winch on 20 August, 1800: " I returned out of Cumberland a few days ago where I had been about 5 weeks..." [57] And 1802: Harriman wrote to Winch on 30 August, 1802, to tell him that: " Next Monday I set

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[53] JS refs: 9/A25/ff.81 & 95. Letters from Harriman to Sowerby dated 16 March, 1802, and 29 May, 1804, respectively.
[54] Letter dated 15 August, 1798, from Robson to Sowerby. JS ref: 16/A48/f.83.
[55] JS ref: 16/A48/f.84.
[56] JS ref: 9/A25/f.72.

off for Maryport and shall be absent about five weeks..." [58] Finally, Winch informed Turner in a letter dated 13 March, 1805, that Harriman; " visits that part of the kingdom [Cumberland] every year..." [59]

Harriman's role was as the link between Oliver and Robson, who was in touch with the botanical *literati* of the day, specifically the authors of *English Botany.*

That Harriman would not have disputed the role I have assigned to him in 1796 as regards the actual discovery of the Teesdale rarities is tacitly agreed by him in letters he wrote to Winch, Sowerby and Turner in March, 1802, about Carices. Specifically, they were about the Teesdale rarity *Carex bigelowii* Torrey ex Schwein. which Harriman wrongly thought he had discovered in Upper Teesdale. I am deliberately quoting from all three of these important letters. As they were all written in the same month, one would expect consistency and we are not disappointed. On 9 March, 1802, Harriman wrote to Winch. I am in little doubt that Winch was familiar with the background to *Plantae rariores...*:

> ...I assure you the specimen I showed you of Carex rigida (*C. bigelowii*) was gathered by me ...near Cauldron Snout. The first and second summers after I went to Egleston *when I attended to little else but Carices and Salices* [my italics], I found a number of alpine Carices and among these there were (I recollect very well) what I called rigida, curta, ovalis, divulsa, stellulata, praecox, capillaris, pulicaris and dioica and a few which I could not make out...The third summer I made an attack upon lichens and these have had so many charms for me that ever since I have paid very little attention to any other plants, but have neglected even my old favourites Carices and Salices. The specimens of these which I gathered the two first summers have never seen the light since...[60]

On 16 March, 1802, Harriman wrote to Sowerby who may have known the background to *Plantae rariores...*:

> ...When Mr. Winch & I were looking over my duplicate Spec^{ms}. lately, he took Notice of Spec^{m}. N°. 1, & said it was Carex rigida. I examined it afterwards, & found it was not that Carex. Mr. Winch did not examine it. I recollect very well, however, the first & second Years after I went to Egleston, when I attended to little else but Carices & Salices, that I found what I called Carex rigida, & several other rare Carices, & a few that I could not name...The third Summer I made an Attack upon Lichens, & these have had so many Charms for me, that ever since I have paid very little Attention to any other Plants, but have neglected even my old Favourites, Carices &

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[57] W1. 010.
[58] W1. 069.
[59] DT ref: 3 f.128 (4 pp.).
[60] W1. 046.

> Salices. Spec^ms^. of these last which I gathered the two first Summers have never seen the Light since,..[61]

Finally, on 20 March, 1802, Harriman wrote to Turner:

> ...I shall send off for you ...one of a Carex w^h^. I cannot make out,[62] & the only Spec^m^. of the new Carex I can find. I must have Spec^ms^. of this last, & of some other rare Carices, which I gathered the first & second Summers after I went to Egleston, when Carices & Salices *occupied me almost wholly* [my italics]: but where I cannot tell, for I cannot find them. The third Year I deserted these for Lichens; & have taken very little Notice of them since, or indeed of any other Plants...[63]

In a letter to Winch dated 13 May, 1801, Harriman states:

> ...One year I paid a good deal of attention to willows...[64]

and in another dated 2 February, 1805, Harriman adds:

> ...As I gathered all my Salices the first Summer after I went to Egleston...[65]

So, having moved to Eggleston in 1796, Harriman "attended to little else" other than *Carices* and *Salices* in 1796. In 1797 *Carices* "occupied [him] almost wholly", and in 1798 he took up lichens with a vengeance, almost to the exclusion of any other plants. Thus, Harriman is effectively telling us that he devoted almost no time to the Teesdale rarities included in *Plantae rariores...*, which I have dated 1 May, 1798. This is corroborated by my evidence. It is also noted that there are no *Salices* in *Plantae rariores...* (surely Harriman could have obtained duplicates), and that of the nine *Carices* in *Plantae rariores...*, only three, namely, *Carex ovalis, C. pulicaris and C. dioica*, are mentioned by Harriman in his letter to Winch of 9 March, 1802,[66] which also refers to nine species of *Carex*. It is not clear whether these were discovered by Harriman or Oliver in Upper Teesdale. In any event, none are Teesdale rarities.

Before I leave 1796 and move on to 1797, the question of how Oliver identified the plants not in Lightfoot's *Flora Scotica*, namely, *P. fruticosa, B. alpina, H. canum G. verna, T. alpestre* and *T. majus* needs addressing. As discussed earlier, he may also

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[61] JS ref: 9/A25/f.81.
[62] It is not known if this is a reference to *C. bigelowii*.
[63] DT ref: 2 f.14.
[64] JS ref: W1.025.
[65] W1.199.
[66] W1.046.

have wanted to confirm his identification of *D. octopetala.* We know from **plate 50** that Oliver had identified *B. alpina* and *H. canum* before he sent them to Robson. Oliver may have gained access to William Hutchinson of Eggleston's library through Harriman. However, I think it much more likely that it was Stephen Cleasby's botanical books at Barnard Castle that he consulted, the introduction having been effected by Harriman. After all, Harriman did not move from Barnard Castle until July, 1796, and he would, therefore, be travelling backwards and forwards between Barnard Castle and Eggleston from September, 1795, until July, 1796. As indicated earlier, Harriman may have identified *P. fruticosa.* The determination of *G. verna,* new to Britain, was achieved by Harriman in 1797. This will be dealt with later. No doubt Robson identified *T. majus.*

I now wish to consider 1797. It will be remembered that on 21 June, 1797, Harriman and Oliver sent Sowerby *D. octopetala, R. chamaemorus, Viola tricolor* and six species of lichen, five of which were newly described by Lightfoot (1777) **(pl. 27)**. They had sent Sowerby *D. octopetala* in 1796. Why did they send it again? Because it had not yet been figured in *English Botany,*[67] and it was in flower at 21 June, 1797. It was also a very rare plant which, according to Lightfoot (1777: 275), had not yet been found in England.[68] *R. chamaemorus* had also not yet been figured in *English Botany.* No doubt Harriman's observation about the crenate petals,[69] which, according to him, no one else had commented upon in print, influenced them in sending up of this plant also, which was used in *English Botany* (Sowerby, 1800 **X**: *t.* 716 dated April 1, 1800). And lastly, Sowerby has annotated Harriman's letter of 21 June, 1797, "Viola lutea" **(pl. 27)**, that is, what Oliver and Harriman had sent up for

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[67] It appeared in 1798 (Sowerby, 1798 **VII**: *t.* 451 January 1, 1798). Oliver and Harriman's material was not used for the figure.

[68] Withering (1796, II:478-479) gives three localities in north-west Yorkshire. In fact, these may all have been the same locality.

[69] Plate XIII in Lightfoot's *Flora Scotica,* 1777, shows *Rubus chamaemorus* with entire petals.

V. tricolor was actually *V. lutea.*[70] I am in no doubt that this was because whereas *V. tricolor* is in Lightfoot's *Flora Scotica, V. lutea* is not. This material was also used in *English Botany* (Sowerby, 1800 **XI**: *t.* 721 dated April 1, 1800). Sowerby has annotated his drawing: "June 24, 1797. From Egleston, in the county of Durham. Rev. Jn. Harriman and Mr. Oliver, Surgeon..." (Garry, 1904 Supplement: 28). On 21 June, 1797, Robson, and Harriman and Oliver, each sent a parcel of plants to Sowerby (**pl. 27**). On 26 June, 1797, Edward wrote to Sowerby again, enquiring, amongst other things, if the two parcels had arrived safely and in good condition.[71] Sowerby replied on 4 July, 1797, thus:

> ...I rec^{d}. the two parcels very safe, they were very good ones,..[72]

I have already referred to Robson's letter to Sowerby dated 15 November, 1797. The juxtaposition of the references to Oliver and Harriman, and the copious list of the rare plants of County Durham (which was to become *Plantae rariores...*) in this letter is clearly significant. Perhaps Oliver and Harriman had just sent their list to Robson for him to compile *Plantae rariores...* during the winter? Alternatively, they may have sent it to Robson some time previously and Robson had been waiting until he had time to compile *Plantae rariores...* In any event, as *Plantae rariores...* is in Linnaean order,[73] I think it likely that Robson had their list by November, 1797. I am in no doubt that Oliver's many discoveries in Upper Teesdale prompted Robson to compile *Plantae rariores...* He would know that many of Oliver's discoveries would be highly sought after by their botanical correspondents. Had Sowerby written to Harriman

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[70] Sowerby has crossed out his annotation: "Sent as Viola tricolor" on his drawing and added "True Viola lutea Mr. Forster but unatural [sic] specimen - It may be corrected from Harriman's specimen."
[71] JS ref: 16/A48/f.76.
[72] ER ref: Add. MS 8190.
[73] In a small number of cases Robson has diverged from the Linnaean order adopted by Withering in his " An Arrangement of British Plants; *According to the latest Improvements of the Linnaean System* [my italics] ", 1796. Did Robson have improvements of his own? In any event, *Plantae rariores...* is fundamentally in Linnaean order.

after receiving the 21 June, 1797, parcel, perhaps Oliver and Harriman might have sent up more parcels for *English Botany* in 1797.

I have already referred to Harriman having determined *G. verna* in 1797, a matter which will be returned to later, and his having gathered what he took to be *Melampyrum sylvaticum* whilst visiting his home in Maryport on holiday in 1797. The determination of *G. verna* brought Harriman and Oliver into contact with Sowerby again, in 1798. In Robson's herbarium there is a gathering of *Thalictrum alpinum* labelled, in Edward's hand, "N^r. Middleton from J. Harriman 1797". *T. alpinum* is a Teesdale rarity. It flowers in June and July (*cf.*1796), and is figured in Lightfoot's *Flora Scotica* (plate XIII). It appeared in *English Botany* (Sowerby, 1795 **IV**: *t.* 262 dated July 1, 1795 [74]) and is listed in Edward's *Catalogus Plantarum britannicarum quae sunt a me desideratae* dated 1 June, 1794. It would appear that Harriman simply gathered it for Robson because he knew it to be one of his *desideratae.* Given its being figured in Lightfoot's *Flora Scotica,*[75] I am of the opinion that Oliver discovered it in Upper Teesdale.

We know that Harriman attended to little else but *Carices* in Upper Teesdale in 1797. He found a number of alpine *Carices* in 1796 and 1797, and in his letter to Winch dated 9 March, 1802, he lists "what I called" nine species, "and a few which I could not make out of which few was that formidable little fellow long suspected by the *literati* to be nothing but a starved plant of [Carex] teretiuscula but now is considered as new..." [76] In a letter to Winch dated 26 October, 1812, he explains that he "did not look upon [this plant] as anything new *so little was I acquainted with*

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[74] Stafleu and Cowan (1985: 682) state that these dates on the plates " may be taken as the approximate dates of publication in accordance with the legal requirements of the period; the dates are, however, not absolute proof of effective publication. " The reader is then referred to, for instance, Wiltshear (1915: 35) which I have discussed at note 2/9.
[75] One of only thirty plant plates.
[76] W1.046.

Carices which genus I then considered it...[77] This plant now has the name *Kobresia simpliciuscula* (Wahlenberg) Mackenzie, but when Harriman gathered it, it was, indeed, unnamed. Wahlenberg (1803) named it *Carex simpliciuscula*, but William Brunton decided it was a *Schoenus* and it is named *Schoenus monoicus* Smith in *English Botany* (Smith in Sowerby, 1805 **XX**: *t.* 1410 dated January 1, 1805).[78] As will be discussed later, the credit for the discovery of this plant is due to James Dickson. *K. simpliciuscula* and Harriman's self-confessed failure to recognise its novelty came to feature very prominently in his correspondence. He determined *G. verna* new to Britain, but his lack of acquaintance with the genus *Carex* prevented him from being credited with the discovery of this new plant. One can sense his chagrin in his letters.

As mentioned earlier, the earliest extant reference that Harriman makes to his interest in lichens is in his letter to Sowerby of 27 July, 1798. He states:

> ...I gathered the latter [*Lichen haematomma*?] & several other very fine Specimens, above Twelvemonth ago, & have considered them as Specimens of a Var. of Lichen ventosus...[79]

In Harriman's letter to Sowerby dated 21 June, 1797, he states:

> I take this Opportunity to send you a few Specimens of Plants which were gathered by Mr. Oliver Surgeon of Middleton & myself - Dryas octopetala, Rubus Chamaemorus, Viola tricolor, Yesterday; the Lichens since Christmas - ... - Lichen deustus, Lichen polyrhizos, & Lichen ventosus, on Whinstone Rocks on Cronkley Fell; Lichen torrefactus & Lichen tristis, on Knot-Rocks near Egleston; Lichen miniatus, on Rocks near Middleton.[80]

It seems clear that Harriman gathered what he considered to be a variety of *Lichen ventosus* with Oliver on Cronkley in the period Christmas 1796 to 21 June, 1797. I believe that the gatherings of lichens that Oliver and Harriman made together in this period constituted Harriman's introduction to lichens, by Oliver. Again, we know from Harriman that he attended to little else but *Carices* in 1797, but he "made an

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[77] W3.014.
[78] The other synonyms are *K. caricina* Willd. and *K. bipartita* auct. (Sell and Murrell, 1996: 81) and *Carex simpliciuscula* Wahlenberg (Wahlenberg, 1803).
[79] JS ref: 9/A25/f.49.
[80] JS ref: 9/A25/f.48.

attack upon lichens" in 1798. I believe that Harriman realised from the work Oliver had already done on lichens that there was tremendous scope for pioneer work to be done in this group, which would, of course, include the discovery of non-descripts, that is, new species. In *Plantae rariores...* is a list of eighty-one species of lichens. In the list in **plate 49** Harriman has ticked seventy-one species as having been "found growing near Egleston." I have dated *Plantae rariores...* 1 May, 1798, but we know that Robson was working on it in November, 1797.[81] *Plantae rariores...* is in Linnaean order and, therefore, I believe that Robson had Oliver and Harriman's list in the November. I affirm that Oliver is responsible for this list of seventy - one species of lichen from "near Egleston."

What is the significance of Oliver's list of lichens vis à vis Harriman? I believe it demonstrates that Oliver was the more experienced of the two botanists when Harriman arrived in Upper Teesdale. There can be little doubt that Oliver had been studying lichens for a number of years, with Lightfoot's *Flora Scotica*, when Harriman arrived. In that he had progressed through the flowering vascular plants and ferns to the flowerless lichens, Oliver was clearly a botanist of some long standing. My scenario is that Oliver had worked the more distinctive vascular plants of Upper Teesdale with his Lightfoot since he arrived in Middleton-in-Teesdale in 1783. Having more or less worked out these non-critical plants, he progressed to lichens. There is no evidence that when Harriman arrived he had any particular "favourites" amongst the various plant groups. Further, he was unfamiliar with the alpine habitat of Upper Teesdale. He would realise that Oliver had more or less dealt with the non-critical vascular plants of Upper Teesdale. He, therefore, chose his own critical groups, the *Carices* and the *Salices,* to work on. We have seen that, even in 1797, Harriman was "so little...acquainted with *Carices*", and we have noted that there are no *Salices* in

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[81] JS ref: 16/A48/f.81.

Plantae rariores..., and only three *Carices*, possibly discovered by Harriman. Oliver introduced him to lichens and he subsequently paid very little attention to any other plants. The only vascular plants which still required attention were the critical ones and those that were very rare. This is born out by the plants which were discovered in the short period following the appearance of *Plantae rariores...*, which I will deal with in the next chapter. In that Oliver and Harriman were working together on lichens for a period,[82] these vascular plants would then have received little attention.

As Robson included Oliver's list of seventy-one lichens in *Plantae rariores...*, he clearly felt confident about Oliver's abilities as a botanist. We have seen that Robson described him as an "industrious botanist", and he had been receiving plants from Oliver since June, 1796. Robson also included Oliver and Harriman's vascular plant list of 159 species found "growing near Egleston" in *Plantae rariores...*

On what basis does Harriman refer to this list as "ours" in his correspondence? For example, in his letter to Sowerby dated 5 February, 1799, he refers to "...our List of the rarer Plants of this Neighbourhood".[83] He determined *G. verna*, and twelve records from the Barnard Castle area of plants not recorded in Upper Teesdale are included in "our List." [84] These records no doubt relate to the eight years Harriman

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[82] In a letter to Winch dated 8 December, 1800 (ref: W1. 016), Harriman states: "...I should like to have also Hoffm. Enum. [*Hoffmanni Enumeratio Lichenum*, 1784, 1785, 1786]. but cannot afford at present to buy it - I wish some lichenist of our neighbourhood, who can, had as great a desire to see it as I have: then he would buy it, & I should borrow it of him if I could." This letter was written after the Oliver/ Harriman split. I am in no doubt that Harriman is referring to Oliver.

[83] JS ref: 9/A25/f.59.

[84] These records, with their numbers in *The Botanist's Guide*, 1805, are as follows: *Campanula glomerata* L. 205. "On Barbara Riggs near Barnardcastle...D. [County Durham] - *Rev. J. Harriman*"; *Ornithogalum lutea* L. 317. "In Barbara Riggs near Barnardcastle, and near Whorlton. - *Rev. J. Harriman*"; *Alisma ranunculoides* L. 353. "In Clay Pits near Barnardcastle, D. - *Rev. J. Harriman*"; *Daphne laureola* L. 369. "In Whorlton Wood, D. - *Rev. J. Harriman*"; *Saxifraga tridactylites* L. 394. "On Walls near Barnardcastle...D. - *Rev. J. Harriman*"; *Helleborus viridis* L. 511. "Upon the Banks of the Tees near Whorlton. - *Rev. J. Harriman*"; *H. foetidus* L. 512. "Upon the Banks of Tees a little below Winston Bridge, D. - *Rev. J. Harriman*"; *Antirrhinum majus* L. 558. "On the Walls of the Castle at Barnardcastle, D. - *Rev. J. Harriman*"; *Orobanche major* L. 563. "Near Staindrop, D. - *Rev. J. Harriman*"; *Astragalus glycyphyllos* L. 645. "On the Banks of Tees a little below the Abbey Bridge near Barnardcastle, D. - *Rev. J. Harriman*"; *Lactuca virosa* L. 678. "On the Bank between the Castle at Barnardcastle and the River Tees. - *Rev. J. Harriman*", and *Hieracium murorum* L. 685. "Near Barnardcastle, D. - *Rev. J. Harriman*". All these plants are in Linnaeaus's

spent at Barnard Castle before moving to Eggleston. They cannot be regarded as critical plants: indeed, the tackling of critical plants had just begun. They appear in *The Botanist's Guide*, all on the authority of Harriman. However, as will be discussed later, it does not follow that Harriman was the original discoverer of these plants in the Barnard Castle area. It may have been Stephen Cleasby. Thus, it has to be noted that when Harriman refers to "near Egleston" or "in this Neighbourhood [of Eggleston]", he is referring to an area, as mentioned earlier, which takes in Cauldron Snout, Maizebeck Scar near High Cup Scar, and Meldon Fell, at or near the head of Teesdale, and Barnard Castle. To take the most obvious route from Maizebeck Scar to Barnard Castle today involves travelling some thirty miles. He may have been responsible for three of the *Carex* records in the list, and Oliver may have discussed the identity of Binks's finds with him. However, if they appeared in Lightfoot, I would expect Oliver to have been able to identify them himself, as before.

Having examined Harriman's botanical activities in Upper Teesdale in the period up to the compilation of *Plantae rariores...*, which of the thirty-six Teesdale rarities listed earlier did he discover? The answer is *G. verna*. However, even in this case, Smith, who was a party to its determination, credits both Harriman and Oliver in his *Flora Britannica* (1800:286). Not unsurprisingly, Harriman took exception.[85] We have examined Harriman's role as regards *Rubus chamaemorus, Asplenium viride,* and *Thalictrum alpinum*, and I am satisfied that Harriman did not discover any of these in Upper Teesdale. Harriman acted primarily as the link with Robson. His importance is defined by the fact that nothing was known of Oliver's botanical activities in Upper Teesdale until he arrived.

Thus, most of the Teesdale rarities were discovered by William Oliver.

Species Plantarum of 1753. Only two of these twelve species have different scientific names today and one of these is distinctive.

NB : This page for Footnote only: Software.

[85] Letter from Harriman to Smith dated 15 January, 1803. JES ref: 22 f. 161. See note 7/45.

CHAPTER 7

FROM *PLANTAE RARIORES*... TO THE START OF THE BACKHOUSE ERA

The floristic recognition of Upper Teesdale can be said to have been established by the publication of *The Botanist's Guide* in 1805. In the preface to this work, Winch *et al.* (1805: iii) state that the Teesdale mountains "are well known to be propitious to the growth of alpine plants." *The Botanist's Guide* was the first flora to be published which included Upper Teesdale. This statement by Winch *et al.* is substantiated by the Upper Teesdale records in *The Botanist's Guide*. Any contemporary botanist seeing these records would have recognised the richness of the flora of Upper Teesdale. As discussed earlier, knowing where to look for the plants was another matter.

I want to deal first with the remaining Teesdale rarities which were discovered in Upper Teesdale prior to the publication of *The Botanist's Guide* in 1805. I have already dealt with *Arctostaphylos uva-ursi* and *Vaccinium uliginosum*. It has been noted that by 1805 *V. uliginosum* had only been found in Upper Teesdale on Meldon Fell in Westmorland. It will also be noted that both Oliver and Harriman have each deleted *V. uliginosum* from their *Plantae Desideratae* (**plates 47** and **48**). However, it has not been added, in manuscript, to *Plantae rariores agro Dunelmensi indigenae* by Harriman. No doubt this was because it had not yet been found in County Durham. Why had Oliver overlooked these two plants? Smith (in Sowerby, 1800 **XX**: *t.* 714 (dated March 1, 1800)) says of *Arbutus* [*Arctostaphylos*] *Uva-ursi* in *English Botany*: "Many persons have confounded this plant with V. vitis-idaea which

somewhat resembles it but in that genus the germen [ovary] is inferior." As *A. uva-ursi* was quite widespread in Upper Teesdale then, presumably Oliver was one of those persons, although he did correctly identify it when Binks brought it to him for *V. vitis-idaea. V. uliginosum* was clearly very rare in Upper Teesdale. On 1 June, 1798, Harriman and Oliver sent Sowerby "*Melampyrum sylvaticum* ? " **L.** and *Convallaria majalis* **L.**, together with some other plants, from near Winch Bridge.[1] These are the first references to each of these two plants growing in Upper Teesdale. Indeed, Harriman asked Sowerby to add *C. majalis* to "the List of Plants of this Neighbourhood." Presumably he did not similarly ask Sowerby to add *M. sylvaticum* as he was not sure of the identification. In a letter to Edward dated 13 June, 1798, Harriman states: "I sent you Specimens of Melampyrum sylvaticum…by Mr. Brunton Yesterday:.. which was found near Winch Bridge last Week,.." [2] It will be noted that *M. sylvaticum* is not queried here. Robson, in Hull (1799:432), states that: "M. *sylvaticum* has been found near Middleton in Teesdale, Durham, by Messrs. Hardiman [sic] and Oliver." The specimens which Harriman sent Sowerby on 1 June, 1798, had been gathered on 31 May, 1798.[3] There is a gathering of *M. sylvaticum* in Robson's herbarium labelled: "Near Middleton in Teesdale V. 1798 J. Harriman & W. Brunton". This is clearly the material which Harriman was referring to in his letter to Robson dated 13 June, 1798. The following records for *M. sylvaticum* appear in *The Botanist's Guide through England and Wales* (1805:251-2): "Banks of the Tees above Middleton [i.e. near Winch Bridge?]: Egleston wood, *Rev. J. Harriman.* By Whince [sic] Bridge,

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[1] JS ref: 9/A25/f.49.
[2] ER ref: Add. MS 8190.

Teesdale. *Mr. Brunton.*" My scenario is that Brunton distinguished the plant from near Winch Bridge. It is not easy to accurately distinguish *M. sylvaticum* from *M. pratense* L. subsp. *pratense* (Graham, 1988:176).[4] Thus, although *M. sylvaticum* is in Lightfoot's *Flora Scotica* (1777: 324,1126), I believe Oliver was not confident about his identification. *C. majalis* is a very distinctive plant. It s only site in Upper Teesdale remains on the County Durham side of Winch Bridge,[5] where it was found "about a Month ago" Harriman told Robson in his letter of 13 June, 1798.[6] As with *V. uliginosum*, I believe it eluded Oliver because of it s rarity. It is not known who first found it in Upper Teesdale. It may have been Binks. Harriman also states in his letter of 13 June, 1798, that *Potentilla verna*,[7] then a critical plant, had been found in the same place and at the same time as *M. sylvaticum*, namely, "near Winch Bridge last Week,.." [8] I can't help feeling that Brunton also made this determination. The following record appears in *The Botanist's Guide through England and Wales* (1805:694): "POTENTILLA *aurea*...Rocks above Gordale Scar [near Malham in the Yorkshire Dales]. *Mr. Brunton.*" I do not know when this record was made. *P. aurea* is recorded from Winch Bridge by Harriman in the

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[3] JS ref: 9/A25/f.49.

[4] In a letter dated 8 July, 1800, Harriman tells Sowerby: "...Specimens of Melampyrum sylvaticum accompany this in a Tin Box. That you may compare it with M. Pratense I send you Specimens also of the latter. **You will see that the Keel of the Blossom of M. sylvaticum is formed thus** ⌝ **, that of pratense thus** ⌜ **.** I pointed out these Circumstances to Dr. Smith but he has not taken Notice of them, either in the Characters or Discriptions [sic] of these species..." JS ref: 9/A25/f.72.

[5] In his letter to Edward dated 13 June, 1798 (see note 7/2 above), Harriman states: "...Convallaria majalis grows on both the Durham & [my emphasis] Yorkshire Side [sic] of the Water;.." I believe this is a mistake.

[6] ER ref: Add. MS 8190.

[7] Under *P. verna* Lightfoot (1777:271) states that *Potentilla aurea*, which he does not otherwise include, differs so little from *P. verna*.

[8] ER ref: Add. MS 8190.

same work (p.250). In a letter to Sowerby dated 4 June, 1799, Harriman states:

> ...I will also send you Spec[ms]. of a Potentilla found near Winch Bridge in this Neighbourhood, last Summer, by Mr. Oliver & me in Company [together]: it agrees pretty well with the Figure & Character of aurea in Eng. Bot...[9]

And in a further letter to Sowerby dated 12 June, 1799, Harriman states:

> ...The Box contains also dried Specimens of the...Potentilla mentioned in a former Letter. Some of the Specimens of the Potentilla wou'd agree pretty well with the specific Character of aurea in Eng. Bot. if the Leaves were thin; & others with that of verna, if the Petals were not a full Yellow. Dr. Smith says- "Haller [see bibliography] observes, that P. verna is a very variable Species, & approaches so nearly to many others, that its Characters & Synonyms are scarcely to be made out."...[10]

The name of this plant is now *P. crantzii* (Crantz) G. Beck ex Fritsch, one of it's synonyms being *P. verna* L., nom. ambig. (Clapham *et al.*,1987:215).

On 11 November, 1800, Harriman wrote to Winch:

> I return you my thanks for the last cargo of specimens of plants you sent many of which were particularly welcome. I was disappointed in not finding among them specimens of mosses and 1 or 2 of the var. of Polypodium aculeatum which you and others think is what is called P. lonchitis. I am sure however there is a species very distinct from any appearance that P. aculeatum can possibly assume which agrees very well with the characters and description of P. lonchitis. Of this species I found several plants a few days after you left me [on 3 July, 1800: see below] and one of them I sent to Sowerby to figure...[11] [12]

Harriman's record for *Polystichum lonchitis* (L.) Roth appears in *The Botanist's Guide* (1805:96) thus: "In the Fissures of Rocks between Widdy Bank and Cauldron Snout, D.-*Rev. J. Harriman.*" The record appears again, of course, in Winch's *Flora* (1831:68). However, this time Winch has added: "First found by the Rev. J. Harriman." Apparently, Winch was unaware of the sheet of *P. lonchitis* in Robson's herbarium (**pl. 52**). One of the fronds is labelled: "N°. 4 from W.O. 1798 Polyp. Lonchitis JES". Robson comments on this same frond in Hull (1799:434): "I strongly suspect Polypodium *Lonchitis*

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[9] JS ref: 9/A25/f.61.
[10] JS ref: 9/A25/f.63.
[11] Letter dated 8 July, 1800. JS ref: 9/A25/f.72.

Plate 52. The sheet of *Polystichum lonchitis* in Edward Robson's herbarium. Sunderland Museum.

Polypodium Lonchitis.

From Curtis

Lin. to be only a young var. of *aculeatum*, as a specimen of what I always considered as the latter, and which grows with it, is labelled P. *Lonchitis* by Dr. Smith." It is not known if Oliver's and Harriman's sites were one and the same.

Reference has already been made to James Dickson of Covent Garden, London, a leading botanist of his day, with a special interest in *cryptogams*. In 1799 he visited Upper Teesdale: an indication that the area was gaining floristic recognition, as with Brunton and Robson's visits in 1798 and Winch's visits in 1799 and 1800. Dickson's visit may well have been prompted by him having seen *Plantae rariores*... Apparently he was on his way to, or returning from, more likely the former (see below), Ben Lawers in Scotland, where he refound *Saxifraga cernua* L. in August, 1799 (Garry, 1904: 79). In 1794 he had found this plant on Ben Lawers new to Britain (Clarke, 1900: 52).

Dickson appears to have been the botanical pioneer of this particular mountain. Dickson missed Harriman, who was on holiday in Maryport, but he met Oliver. I am in little doubt that Oliver acted as his botanical guide. Who would want to miss such an opportunity? Dickson recognised the novelty of what we now know as *Kobresia simpliciuscula* (Wahlenb.) Mackenzie, the false sedge, and identified *Eriophorum latifolium* Hoppe in Upper Teesdale. We know about his visit from the following sources.

Harriman wrote to Sowerby from Eggleston on 8 August, 1799:

> ...Mr. Dickson was here , & I was sadly disappointed that I did not see him, as I had expected a Fund of Knowledge from him. I saw him at Maryport: but seeing him there was Nothing: I wanted to see him here. As I did not, he must needs furnish me with Specimens of rare Lichens, Jungermannias, Mosses, Ferns, & Funguses, or come back - I hope he will come back; & I should like to see you along with him...[13]

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[12] W1.014.
[13] JS ref: 9/A25/f.64.

In a footnote to this letter, Harriman states: "...Mr. Dickson found the former [*Lichen glaucus*] in Fructification in his last Excursion..." This would appear to relate to his visit to Upper Teesdale. In Harriman's previous letter to Sowerby dated 12 June, 1799, there is no reference to Dickson.[14] I, conclude, therefore, that Dickson visited Upper Teesdale sometime between 12 June, 1799, and 8 August, 1799. Given the pattern of Harriman's visits home, I think Dickson's visit would have been nearer the latter date. As will be discussed later, Winch did not make his first visit to Upper Teesdale until 25 August, 1799, that is, after Dickson. I think Robson will have played a part in Dickson's visit to Upper Teesdale. They were correspondents.[15] I am in little doubt that Robson sent Dickson a copy of *Plantae rariores*... That Winch visited Upper Teesdale so soon after Dickson might suggest that Dickson made contact with Winch after his visit, whilst he was in the north of England.

On 5 January, 1802, Harriman wrote to Turner. He had previously sent Turner at least thirty (different?) species of lichen for his comments. Turner had given his comments, requesting Harriman, in turn, to comment on these. In his letter of 5 January, 1802, Harriman quotes Turner's comments first and then gives his own comments. Harriman says of lichen number six:

> "This appears to me the same as one that Dickson brought with him from Wales in 1799 (He brought it from Mr. Oliver in that Year) [16] & meant to have described in his 4th. fasc.[17] as new: he has however omitted it, & I know Nothing like it."
> This is clearly a disguised Spec^m. & I am almost certain the Species is described, & that we all know it well in its perfect state. This is all I shall say at Present.

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[14] JS ref: 9/A25/f.63.
[15] See note 5/3 above.
[16] The comment in brackets is Harriman's.
[17] James Dickson. *Plantarum Cryptogamicarum Britanniae. Fasciculus Quartus.* London. Published 4 October, 1801 (Dickson, 1801 [1785-1801], reprint with introduction by Hawksworth, 1976).

Regarding number thirty, Harriman states:

> "N°. 30 seems a poor Spec^m^. of L. impressus of Achar. & Dickson's 4^th^. fasc. which you sent me before under the Name of scruposus."
> Mr. Dickson got Spec^ms^. of this from Mr. Oliver. When I first found it,..[18]

Given that Oliver and Harriman had parted company in April, 1799, how did Harriman know what had transpired between Dickson and Oliver? I think Harriman found out from Binks.

In the letter press to *Schoenus monoicus* (*K. simpliciuscula*) in *English Botany* (Sowerby, 1805 **XX**: *t.* 1410 dated January 1, 1805) Smith states:

> THE honour of making this singular plant known is due to Mr. Dickson, who gathered it in the county of Durham [sic] [19] in 1799. The Rev. Mr. Harriman had indeed found it in 1797; but not being aware of its novelty, he liberally disclaims the merit of the discovery. For the same reason I can pretend to little of the honour, though I gathered the same species on Mount Cenis in August, 1787, having ever since kept it unsettled in my herbarium. Indeed I have been deterred by the extraordinary difficulty of settling its genus. Every body, even the able Mr. Schkuhr [see bibliography] when it was sent to him, took it for a *Carex,* and the greatest praise is due to Mr. W. Brunton for judging it a *Schoenus*. Mr. Harriman, to whom we are obliged for specimens, finds it wild on the mountain of Cronkley, Durham [sic]; also near Widdy bank in Teesdale forest...

Most of Smith's comments are clearly taken from Harriman's letter to him of 15 January, 1803:

> ...I had plants of the new Carex in a garden at Egleston when Mr. Dickson visited that neighbourhood in '99 which he perhaps would have seen had he favoured me with a call.[20] These I am very sure I must have gathered as early as '97. They grew upon Cronkley on the very spot where I always dine when I visit that mountain. I had however no idea that the Carex was new. Mr. Dickson ought perhaps notwithstanding what I have stated to be considered the discoverer of this Carex as having first introduced it to notice & because were the credit of the discovery given to me & the case made a general rule a door would be opened to imposition & disputes about the discovery of plants would frequently arise...Mr. Brunton I must not omit to say as his authority I understand is high with respect to grasses thinks it is not a Carex but a Schoenus & that what is called an arillus [tunic] is nothing but a husk...[21]

In a further letter to Smith dated 19 November, 1803, Harriman states:

> ...Should this grass be published in English Botany, I could wish you would say in the letter press that Mr. Dickson found it upon Cronkley, **Yorkshire** [my emphasis] in 1799

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[18] DT ref: **2** f.2.
[19] Yorkshire.
[20] Harriman's memory was at fault: he was away at Maryport at this time.
[21] JES ref: **22** f.161.

& first introduced it to notice. If I am to be mentioned say that Mr. Oliver & J. Harriman furnished you with specimens from Widdybank in Teesdale Forest...[22]

Harriman wrote to Sowerby on 11 February, 1803, enclosing, amongst other things, ten specimens of the new grass for Dickson. He comments:

...I have used the Terms new Grass, & not new Carex, because Mr. Brunton, who is skilful in Grasses, thinks it is a Schoenus. If, however, the Covering of the Seed, is not an Arillus (& it certainly is a very particular one, if it be) but a Husk, as that Gentleman supposes; - the plant being androgynous [some flowers with male parts only, the others with female parts only] (not to mention other Circumstances) is fatal to the Opinion that it is a Schoenus...[23]

Thus, Harriman's doubts about this plant not being a *Schoenus* were correct. In *Schoenus* the flowers are hermaphrodite, and in *Kobresia* they are unisexual (Clapham *et al.* 1987:592,594).

I am in little doubt that Oliver showed Dickson *K. simpliciuscula* at Harriman's (and Oliver's?) dining spot on Cronkley. Unlike Harriman, Dickson realised (later?) it s novelty and brought it to notice.

Dickson (1794: 289) was the first botanist to distinguish *Eriophorum polystachion* from *E. angustifolium* (Withering, 1796:72). Winch annotated his personal copy of *The Botanist's Guide* [24] against "50. Eriophorum polystachion.": "No 50 is E. pubescens of Smith. Eng: Fl", that is, Smith (1828b I: 69). *E. polystachion* auct. and *E. pubescens* Smith are synonyms of *E. latifolium* Hoppe (Sell and Murrell, 1996:69). The first reference to *E. latifolium* in Upper Teesdale is Winch's annotation in his personal copy of Withering Jnr.'s *A Systematic Arrangement of British Plants*,[25] 1812 (II:100) against *E. polystachion*: "Whey syke Teesdale 2 July 1800". Winch's visits to Upper Teesdale in 1799 and 1800 will be discussed later. My scenario is that

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[22] JES ref: **22** f.164.
[23] JS ref: 9/A25/f.89.
[24] This is in the library of the Linnean Society of London.
[25] This is in the library of the Linnean Society of London.

Dickson identified his plant when Oliver was guiding him round Upper Teesdale in 1799. Oliver had not distinguished this very recently described species from the more common *E. angustifolium* Honckeny.

The last Teesdale rarity I want to consider is *Carex capillaris* L. It will be remembered that Harriman found "what I called...[Carex] capillaris" in 1796 or 1797 in Upper Teesdale.[26] However, it does not appear in *Plantae rariores*... Again, the first reference to this species in Upper Teesdale is Winch's annotation in his personal copy of Withering Jnr.'s *A Systematic Arrangement of British Plants*, 1812 (II:138): "July 2^{d}. 1800" asterisked to the printed sites: " (Whey Sike, and Cronkley Fell, and Widdy Bank, Durham. [27] Rev. J. HARRIMAN. *Bot. Guide* [28]...)" A few days later, on 8 July, 1800, Harriman sent Sowerby specimens of *C. capillaris.*[29] It is evident from Winch's annotated set of Smith's *Flora Britannica*, 1800-1804, in the library of the Linnean Society of London that he spent virtually the whole of June, 1800, botanising in Scotland. He appears to have gone straight from Scotland to Upper Teesdale. It would appear from his annotation against *C. capillaris* (Smith, 1804 **III**: 985) that he did not personally see *C. capillaris* growing in Scotland. However, this annotation was clearly made retrospectively, or, more likely, transcribed from another annotated flora. It seems too much of a coincidence that Harriman sent Sowerby this plant so soon after Winch's visit. I can't help feeling that Winch's holiday in Scotland had a bearing on this

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[26] Letter from Harriman to Winch dated 9 March, 1802. Ref: W1.046.
[27] Cronkley Fell is in Yorkshire.
[28] Turner & Dillwyn (1805:258).
[29] Letter JS ref: 9/A25/f.72.

event. My scenario is that Harriman showed Winch the plant in Upper Teesdale on 2 July, 1800, and Winch identified it.

There are two sources which give a good indication of the standard Oliver had achieved in his botanical studies just before he parted company with Harriman in April, 1799. Both relate to his interest in lichens. The first is, as far as I am aware, the only extant letter written by Oliver. The letter is dated 5 March, 1799, and addressed to William Weighell. I have already made reference to it. It is in the Winch correspondence at the Linnean Society.[30] **Plate 53** shows the end of the letter, with Oliver's signature, and its reverse. Why is this letter in the Winch Correspondence? Because Winch "became possessed of the Herbarium of the late Mr Wm Weighell of Sunderland" (Winch *et al.*, 1805 **I**: vi). No doubt Oliver's letter was with the lichens. As this is the only extant Oliver letter, I am transcribing it in full to put some flesh on the man:

5.3.1799
Middleton

Dear Sir,

I promised my worthy and valuable friend Mr. E. Robson to send you a paquet of lichens five or six mths. Ago, but have always been prevented from putting my intention in execution before now from a multiplicity of professional avocations. The whole sent amount to the no. of eighty distinct species: **As the genus of lichen comprehends such a great no. of species, and many of the species several varieties, and the same species vary so much from age, situation, and the substances on which they grow** [my emphasis] it cannot be expected that they are all right named especially as we had no collectors to compare our specimens with. Some few have been sent to our first Chryptomamist [sic] Mr. Dickson of Covent Garden London, and we have in general had the satisfaction of finding we had named them right: All the specimens sent have been gathered within ten or twelve miles of this place: We have found a considerable no. more which, as I have taken a list of those now sent, you may expect to receive at some convenient opportunity. My friend the Rev^{d}. Mr. Harriman of Eglestone and I will consider ourselves much indebted to you if you would be so good as send us dried specimens of the Ballast Hills Plants as also as many marine plants as you conveniently can, & we in return shall be happy to supply you or any of your friends…

Page break.

…be so good as send two specimens of each at least when you…

Same page break.

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[30] W1.084.

Plate 53 (one sheet). Parts (front and reverse) of William Oliver's letter to William Weighell dated 5 March, 1799. Nathaniel John Winch Correspondence, The Linnean Society of London.

34 [illegible] S.

35 marginatus +

36 [illegible]us +

37 fimbus X

38 alicaeus +

39 calicaeus X — calicaris

40 dalmaticus X

27

51

74 — [illegible]

75 — [illegible]yllus +

76 — candelaeus +

77 — guadacalor? S

78 — fraxchalis +

79 — elaeus? (the same as fraxchalis)

80 — tubulatus + botricoides +

81 — ferrifus +

82 — [illegible]

cus

* Thesaurus d'Candre, my Finds M.S. Hand [illegible] communicated, with thanks

good ears and two specimens of each at least if they
No the greatest number of the specimens have the appearance
written upon them, and are all numbered yet as the paper
is bad and my ink I had some difficulty in making them
out. I have judged it proper to give a list of their names on
the other side. I am with the greatest esteem
Your obed. humble. Serv. William Oliver

34 [illegible]
35 [illegible]+
36 [illegible]+
*37 [illegible]
38 [illegible]+
39 [illegible]
40 [illegible]+

29
51

74 —
75 — [illegible]+
76 — [illegible]+
77 — [illegible]?
78 — [illegible]+
79 — [illegible]+ botricoides +
80 — [illegible]+
81 — [illegible]+

* [illegible]

> Tho' the greatest number of the specimens have the names written upon them, and are all numbered yet as the paper is bad and you may find some difficulty in making them out I have judged it proper to give a list of their names on the other side. I am with the greatest esteem
>
> Your obed[t]. & humb[e]. Ser[t].
>
> William Oliver

It is clear from this letter that Oliver had a good understanding of the *apparent* variations in lichens.

The second source is Sowerby's draft of a letter to Oliver dated 10 March, 1799.[31] This follows straight on from Sowerby's draft of a letter he sent to Harriman which he started on 17 February, 1799, and finished by 10 March, 1799. There is no reason to doubt that Oliver and Harriman received these letters. Sowerby's letter to Harriman is primarily about lichens and includes a detailed discussion of some Harriman had sent him. Sowerby remarks:

> ...The collecting of them [lichens] continually in different states will I hope put all to rights and we shall always be indebted to your and Mr. Oliver [sic] industry and discernment...

Clearly, Sowerby and Oliver were of the same mind as regards the habits of lichens. Sowerby also mentions to Harriman that he had sent a copy of Harriman's *Plantae Desideratae* to "the Rev. Mr. Baker of Gloster [sic]".[32] I am also transcribing Sowerby's draft letter to Oliver in full as the only such extant letter:

> I am very thankfull [sic] that you and Mr Harriman are so kind and asiduous [sic]. I think you are happy men as you must find continual amusement in the department of nat[l] history, with regard to nameing [sic] the fossills [sic]it is not possible with that acuracy [sic] I could wish. Theres more difficulty in comprehending them than plant [sic] and authors differe [sic] much in their trials & oppinions [sic] I will do the best I can presently - but now for your L[n] gelasinatus? pray see answer to your friend H [33] the Windsor L[n] is greyish shields & somewhat sinuose [34] you will no doubt find plenty of it some chance or other on Oaks where the other grows, There also you will often find

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[31] JS ref: 85/A72/no folio no.

[32] William Lloyd Baker (1752-1830).

[33] Sowerby's answer was: "...L[n] gelasinatus I showed to dickson [sic] long since I find it on Oaks with the Windsor Lichen it is surely a very different plant I once put it by as a sphaeria. It might be Lichen sphaeriformis". See note 7/31.

[34] Having a wavy margin, with alternate rounded sinuses and lobes.

> another nondescript with fructification of a brown dusty appearance. As to your modesty with regard to being a Fellow of the Linn[n] Society that is a strong indication of knowledge and I should not scruple to recommend you if you have no particular objection.

I interpret the last sentence of this letter as meaning that it had previously been suggested to Oliver that he become a Fellow of the Linnean Society of London, but his modesty had prevented him from pursuing the matter.

Sowerby was now, quite spontaneously, offering to recommend him as a Fellow. Once again, Oliver did not pursue the matter. Miss G. Douglas (pers. comm.) confirms that he never became a Fellow, or an Associate, of the Linnean Society. This demonstrates an obvious difference between Oliver and Harriman. Perhaps one of the reasons why Oliver did not pursue the matter was because of his imminent split with John Harriman FLS?

I now want to deal with the reason why Oliver is not shown as the authority for a single record in either *The Botanist's Guide* or *The Flora*. Indeed, his name does not appear anywhere in either work, or in any published work by Winch. It is perhaps not surprising that the reason should involve the plant for which Upper Teesdale is most famous, namely, *Gentiana verna* L., the spring gentian. I like what Thomas Johnson (*c.*1597-1644) said of its colour in his first edition of Gerard's *Herbal*: "...it seemes to exceed blewnesse it selfe.." (1633:436). When Harriman arrived in Upper Teesdale the plant had only been recorded " In the mountaines betwixt Gort and Galloway [sic] abundantly " in the west of Ireland in Britain (How, 1650: 46). Dillenius in Ray (1724: unpaginated [35]) doubted this record. I am in no doubt that Harriman first saw it as dried specimens in Oliver's herbarium. It would not be named *G. verna*. I

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[35] *Indiculus plantarum dubiarum.* Dillenius edited the third edition of Ray's *Synopsis methodica stirpium Britannicarum*, 1724, anonymously.

have pointed out that Oliver showed him "root leaves" on Cronkley on 27 July, 1796. Harriman sent two dried specimens from Oliver to his friend Robson in 1796 for identification (**pl. 51**). [36] It is understandable that Robson identified the plant incorrectly as var. 3 of *Gentiana amarella* [37] (Withering, 1796 **II**: 281), as *G. verna* is not in the first three editions of Withering's work on British plants. No doubt Robson informed Harriman of his determination. We have noted that William Hutchinson of Eggleston was both a botanist and a horticulturist. I am in no doubt that he subscribed to Thomas Martyn's edition of Philip Miller's *The Gardener's and Botanist's Dictionary*... Martyn changed the title to *The Gardener's and Botanist's Dictionary the Whole Collected and Newly Arranged.* The first Part was published on 30 May, 1795 (Henrey, 1975 **III**: 91). Robson also subscribed to this work. In a letter to Sowerby dated 1 November, 1795, Edward states:

> ...I am induced to address thee & to request thy sending me all of Miller's Gardener's Dictionary by Martin w[ch]. is published, except the first two parts which I have (ending with Banksia) but suppose much more of it has come out by this time. I think it a very useful work, not only for the gardener as well as the botanist...[38]

My analysis of Edward's correspondence with Sowerby shows that each Part appeared in numbers. That number dealing with *G. verna* appeared in November, 1796 (Horsman, in prepn.[39]). That Harriman saw it prior to April, 1797, will become evident. Although published in numbers, the whole was published in 1807 (Henrey, 1975 **III**: 91).It is the 1807 version which I have studied. I have not seen the work in numbers: indeed, I am not aware if it is still extant in this form. Harriman would have had no difficulty in identifying *G.*

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[36] One of the specimens has been lost from the sheet.
[37] Var. *uliginosa* Willd (Raven, 1942:264)?
[38] JS ref: 16/A48/f.78.

verna from the November, 1796, part of this work. That he did in fact use this work to identify *G. verna* is confirmed by Martyn's use of the term "root-leaves" in his description of *G. verna* (the work is unpaginated but in alphabetical order). Harriman would need fresh material of *G. verna* to confirm his identification and this Binks gathered for him in April, 1797 **(pl. 54)**. There is no reason to believe that Oliver did not arrange for Binks to make this gathering for Harriman. Harriman then sent some of this fresh material to Smith for confirmation of his identification. This is implicit in the first paragraph of **plate 54**. **Plate 55** is a copy of the sheet of *G. verna* in Smith's herbarium at the Linnean Society of London. It will be noted that Smith received eight specimens from "Teesdale forest, Durham. Rev. Mr. Harriman" which agrees Smith's letterpress in *English Botany*. As explained below, **Oliver and** Harriman sent Smith fifty specimens on 4 May, 1798, from which Sowerby made his drawing. Apparently, when Smith had finished with the April, 1797, material it was no longer suitable for Sowerby to draw. Sowerby has annotated his drawing of *G. verna*: "...The latter [Mr. Harriman] thinks he was the first Botanist who knew Gent. verna to be a Brittish plant..."(Garry, 1904 Supplement: 124). Evidently, Harriman, not unsurprisingly, was unaware of the Rev. Richard Heaton's (?1601-?1666) authentic Irish record in How's *Phytologia*, to which Smith refers in **plate 54**. Jane Barrington, the wife of Harriman's Bishop, wrote to Smith on 19 August, 1798:

> ...We have in this neighbourhood a gentleman who discovered last Spring the Gentiana verna which I think he sent me before you left London. I have wrote to Sowerby to desire when he inserts it in the English Botany that he will mention his name as the first discoverer in this part of the world The Reverend J. Harriman of Egleston...[40]

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[39] My research is complete. I intend to publish it as a short note in *Archives of Natural History*.
[40] JES ref: 20 f.95.

Plate 54. *Gentiana verna* in *English Botany*. Note paragraph one.

GENTIANA verna.

Spring Gentian.

PENTANDRIA Digynia.

GEN. CHAR. *Cor.* of one petal. *Capſule* ſuperior, one-celled, two-valved, with 2 longitudinal receptacles.

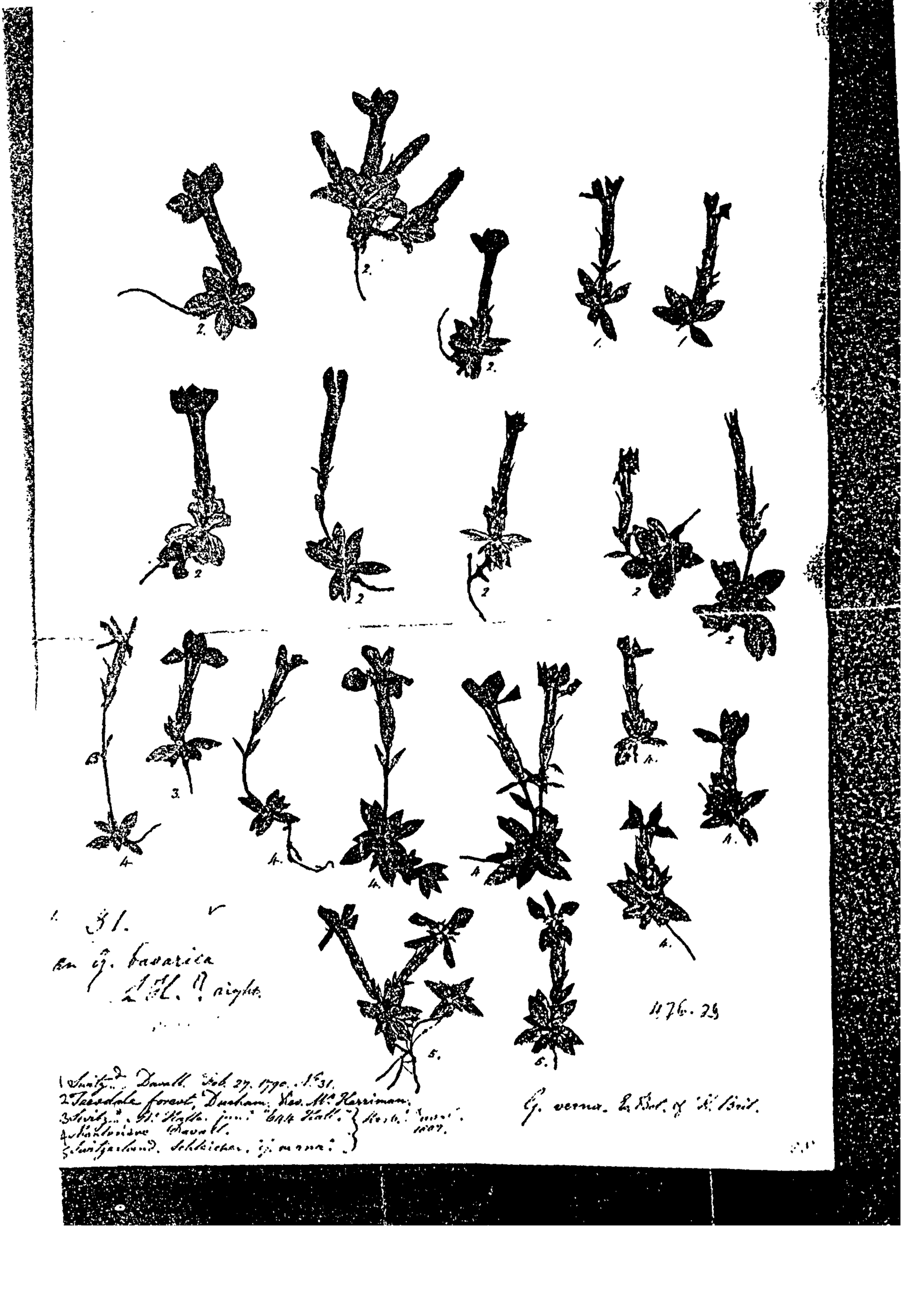
SPEC. CHAR. Corolla five-cleft, falver-ſhaped, crenate; ſegments toothed at their baſe. Leaves cluſtered, ovate.

SYN. Gentiana verna. *Linn. Sp. Pl.* 331.
G. n. 644. *Hall. Hiſt. V.* 1. 280. Davall.
Gentianella alpina verna. *Ger. em.* 436. *f.* 2. *How. Phytolog.* 46. *Merr. Pin.* 45.

THIS very elegant plant was gathered, in April 1797, in Teeſdale foreſt, Durham, by Mr. John Binks, and ſent us by the Rev. Mr. Harriman, the firſt botaniſt who has aſcertained it in England, though the inhabitants of the foreſt know it well by the name of Spring Violet, as it copiouſly enamels that country at a time when no other flower enlivens the dreary ſcene. Dr. How in his *Phytologia*, printed in 1650, mentions this Gentian as having been found abundantly in the mountains betwixt Gort and Galloway, Ireland, by Mr. Heaton; yet Ray has only reckoned it among the doubtful natives of theſe kingdoms. We have been favoured with fine recent ſpecimens by the Hon. Mrs. Barrington. Mr. Oliver of Middleton has communicated a number of dried ones, which have been carefully compared with the Linnæan Herbarium, and prove this the real G. *verna*; though it is by no means clear that G. *Bavarica*, differing only in having a taller ſtem, and ſpatulate blunt leaves, is a diſtinct ſpecies, for ſome of Mr. Oliver's ſpecimens have very blunt though ſtill ovate leaves. Linnæus did not well underſtand the ſpecies of *Gentiana*, *Anemone*, and ſome others of Alpine growth.

The root of G. *verna* is perennial, thread-ſhaped, and creeping. Stems about an inch high, ſimple, ſingle-flowered, thickly clothed with leaves which are more eſpecially cluſtered in the lower part, and are of an ovate form, entire, generally pointed. Flower ſolitary, terminal, erect, large. Calyx with 5 waved carinated angles, and 5 equal ſharp teeth. Corolla with a plaited cylindrical tube, twice as long as the calyx, and a flat limb in 5 equal obovate crenated lobes, of a moſt vivid blue, with a tooth on each ſide at their baſe. Stamina ſhorter than the tube. Germen cylindrical. Style really ſimple, with a flat, feathery, 2-lobed ſtigma. The whole herb is ſmooth, leſs bitter than moſt Gentians. Sometimes the flowers are of a paler blue.

Plate 55. The sheet of *Gentiana verna* in the herbarium of Sir James Edward Smith. Note the eight specimens sent by Harriman to Smith (each numbered " 2 ") from "Teesdale forest, Durham. " The Linnean Society of London.


1.
2.
3.
4.
5.
6.
1 Suitz.d Dandl. Feb. 27. 1790. 1531.
2 Teesdale forest, Durham. Rev. Mr Harriman.
3 Suitz... Gl. Halle. jun. Elk Hall. } Rev. Mr Harriman. 1807.
4 Hartlebiene Dandl.
5 Schnifgarten d. Schlüchtern. G. verna.
1176. 29
G. verna. L. Sect. 9 Mr Linn.

On 12 November, 1797, Withering Snr. wrote to Robson. He added a footnote:

> ...Have lately rec[d]. a single Spec[m]. of Gentiana verna from a new correspondent of the name of Harriman, a Clergyman in your County. He says it grows in abundance. Do you know that Gentleman.[41]

My scenario is as follows. Having received Withering's letter, Robson requested some dried specimens of *G. verna* from Oliver direct. Oliver sent him them in December, 1797. Some of these are labelled "Gentiana verna ? N[r]. Middleton from W. Olliver [sic] 12 - 1797" in **plate 19**. Robson then sent some of these "dubious plants" to Dawson Turner for formal identification. No doubt Robson knew what Harriman was about, but he would not yet know of Smith's determination. Turner replied to Robson on 15 February, 1798:

> ...The dubious plants which you sent me I have not yet had an opportunity of showing to D[r] Smith, as I wish to wait till I see him, which I fear will hardly be before three weeks or a month; I will then compare your Gentiana with the Linnaean herbarium,[42] but in the interim let me tell you that I am authorized by no less an authority than Sir Joseph Banks himself to pronounce it the G. verna...[43]

I believe Turner gave Smith the material which he had received from Robson, which is why Smith remarks in **plate 54**:

> ...Mr. Oliver of Middleton has communicated a number of dried ones, which have been carefully compared with the Linnaean Herbarium, and prove this the real G. *verna*;..

This is, no doubt, why, as mentioned earlier, Smith credits Harriman *and* Oliver with the discovery of *G. verna* in his *Flora Britannica* (1800, I:286).

Sowerby has further annotated his drawing of *G. verna*: "...May 4 [1798], Mr. Oliver and Mr. Harriman sent 50 specimens for Dr. Smith...The drawing was finished from Mr. Harrimans and Oliver's favor..." (Garry, 1904 Supplement: 124). I believe that Oliver was still ignorant of Harriman's

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[41] ER ref: Add. MS 8190.
[42] By this time at Smith's home in Norwich (Walker, 1988:27).

previous contact with Smith about *G. verna*. In a letter to Sowerby dated 26 September, 1798, Harriman states: "..., I will give John Binks, the Miner who first brought Gentiana verna to *our* [my italics][Harriman and Oliver's] Notice,.." Given what Sowerby knew,[44] Harriman had no choice but to use the pronoun "our". After all, Oliver would never see it! [45] Harriman wrote to Edward on 9 April, 1799:

> ...Mr. Oliver expects to be at Darlington Tomorrow, & will bring along with him Specm^{s}. of some Lichens.[46]

Both Robson and Oliver received their *English Botany* in separate numbers.[47] It is not known when each received the number which included *G. verna*. Oliver had received his numbers from London through Robson.[48] I would suggest that Oliver was picking up his outstanding numbers from Robson when he visited him on 10 April, 1799.[49] Andrews (1936:71) quotes from The Hon. John Byng's diary for 13 June, 1792, when he was at Middleton-in-Teesdale:

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[43] ER ref: Add. MS 8190.
[44] Harriman would have his draft letters to refresh his memory.
[45] Harriman wrote to Smith on 15 January, 1803 (JES ref: 22 f.161), "...Mr. Oliver was in possession of Gentiana verna 2 or 3 years before I saw it and yet I was considered the discoverer of it as a British plant because I first ascertained that it was Gentiana verna and introduced it to botanists. Mr. Oliver did not first find Gentiana verna as I first found the Carex [*K. simpliciuscula*] in question. It was sent to him by a young man of the name of Stagg who has picked it up when he was a fishing..." "Stagg" was Joseph Stagg (1774-1809) who was employed by the London Lead Company (Raistrick, 1977: 159). I believe this reaction was prompted by Smith (1800:286) having credited both Oliver and himself with the discovery of *G. verna* in Upper Teesdale, in the context of Harriman's comments earlier in this same letter about who should have the credit for the discovery of *K. simpliciuscula* (in Upper Teesdale). I don't doubt what Harriman said about Oliver and Stagg. However, the notion that this was the first time that Oliver had seen the plant is patently wrong. The inhabitants of Teesdale Forest knew it well and used it to decorate clay and moss balls which were put " in the window *for all to see* " [my italics] (Bellamy and Mackie, 1981: 125). That Oliver as a surgeon on his rounds on horseback had not seen it beggars belief. I believe Harriman was taking advantage of Smith's ignorance of the distribution of *G. verna* in Upper Teesdale.
[46] ER ref: Add. MS.8190.
[47] The thirty-six volumes of *English Botany* originally appeared in 267 numbers (Henrey, 1975 III: 119).
[48] Letter from Robson to Sowerby dated 15 November, 1797. JS ref: 16/A48/f.81.
[49] William Hutchinson of Eggleston received *English Botany* from London three or four times a year. JS ref: 9/A25/f.77. Letter from Harriman to Sowerby dated 28 August, 1801.

"...they are shut up in winter, or in snow; for the snow was not wasted till a month ago,.." Thus, this may have been Oliver's first opportunity to collect his currently outstanding numbers from Robson in Darlington. We know he had at least one other reason for visiting Robson, and, no doubt, he had other business to attend to in Darlington, hence the numbers not being sent to him by post. It is my scenario that Oliver saw Smith's letterpress for *G. verna* in *English Botany* on this visit to Robson's. One can imagine with what keen concern Robson would want to show Oliver Smith's comments about Harriman. It is my contention that when Oliver realised that Harriman had treated him in such an underhand manner, he ended their botanical association, and resumed a low botanical profile. However, we know from Garland (Anon., 1813: 95) that Oliver was: "a Gentleman to whom the Writer with many other wanderers in his vicinity, has been indebted for much personal civility and local information." This is why Oliver's name does not appear in either *The Botanist's Guide* or *The Flora*.

Vaccinium uliginosum in *English Botany* is very illuminating in terms of the breakdown of Oliver's relationship with Harriman. On 24 August, 1798, Oliver and Harriman sent Sowerby berries of *V. uliginosum.* This the first reference to *V. uliginosum* in Upper Teesdale. Harriman informed Sowerby that: "...We will furnish you with Specimens in Flower of this last Plant [*V. uliginosum*] next Spring..." [50] Sowerby's figure of *V. uliginosum* in *English Botany* (Sowerby, 1799 IX: *t.* 581), which is dated April 1, 1799, does, of course, include both berries and flowers. Smith's letterpress states: "...We received wild specimens from Mr. Harriman & Oliver..." So, Harriman and Oliver sent

Sowerby *V. uliginosum* in flower in the spring of 1799. I think not. In a letter to Sowerby dated 4 June, 1799, Harriman states:

> ...I only sent you Specimens in Fruit of Vaccinium uliginosum; some Body else must have sent you Specimens in Flower, who is more anxious perhaps than I am, to have his Name appear in your elegant Work, with the Figure of a Plant merely rare. Give me Credit for my my [sic] new Discoveries & Observations, & I shall be satisfied. I shou'd be sorry, however, to see the Practice dropped, of mentioning the Persons whose Specimens of more rare Plants you figure, because it gives Information of whom Specimens of such Plants may be had...[51]

This is clearly a side swipe at Oliver. In the letterpress Smith states that *V. uliginosum* flowers in April or May. My scenario is that Binks gathered the plant, in bud and/or flower, on Meldon Fell in April, 1799, for Oliver to send up to Sowerby as promised. Sowerby drew the figure in April, whilst the material was fresh, and dated the plate April 1, 1799. Wiltshear (1915:35) explains that the dates on the plates in *English Botany* are the dates from which the plates' "copyright was vested in the engraver, whose pecuniary interests would be best served by fixing on the nearest possible date to that on which it was offered for sale, thus enjoying the protection of the Act, for the maximum length of time." As Sowerby was the drawer and engraver of most of the plates for, and the publisher of, *English Botany* (Henrey, 1975 II: 141; III:119), I would have thought it would be academic as to what date Sowerby put on his plates. I suggest that Sowerby simply adopted the convention of dating his plates the first of the month in which they were drawn, bearing in mind that it was a periodical publication? The purpose of dating was presumably in connection with the process of publication of the plates. As far as is known, the only communication Oliver received from Sowerby directly, and certainly the first, was that he received in the previous month, dated 10

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[50] Letter from Harriman to Sowerby dated 4 September, 1798. JS ref: 9/A25/f.51.

March, 1799. And this was the first time Oliver had sent a Teesdale rarity to Sowerby for *English Botany* direct, that is, independently of Harriman. Whilst Harriman makes references to Oliver in his correspondence after a letter to Sowerby dated 11 March, 1799,[52] none are contemporary. Thus, in April, 1799, Oliver and Harriman's association came to an end.

Having established why Oliver is not given as the authority for any records in *The Botanist's Guide* or *The Flora*, I want to examine the records where Harriman is given as the authority. Of the forty-five Teesdale rarities which I have dealt with, Harriman is the authority for the Upper Teesdale records for ten of them in *The Botanist's Guide*. These are *Sesleria caerulea, Juncus triglumis, Chamaenerion angustifolium, Vaccinium uliginosum* (pl. 56), *Saxifraga stellaris* (pl. 57), *S. hypnoides, Trollius europaeus, Listera cordata, Hammarbya paludosa* (pl. 61) *and Polystichum lonchitis* (pl. 54). "No person's name is annexed" to the Upper Teesdale records for the other thirty-five Teesdale rarities. Why is Harriman given as the authority for these ten records? In the preface to volume one of *The Botanist's Guide* (Winch *et al.*, 1805:ii), the editors state the authorities on which their catalogue rests:

> Those species to which no person's name is annexed, may be considered as having not only been observed, but specimens of them collected by the Editors themselves; yet they do not on all occasions claim the merit of original discovery, but are happy to acknowledge they are greatly indebted to the communications of various botanical friends, particularly to the Rev. J. Harriman of Gainford, for pointing out such indigenous plants as *are* [my italics] worthy of notice on the romantic banks of the Tees;..

There is no evidence that either John Thornhill or Richard Waugh, Winch's co-editors, ever botanised in Upper Teesdale. Therefore, in the case of the thirty-five records for Teesdale rarities made in Upper Teesdale, Winch collected

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[51] JS ref: 9/A25/f.61.

Plate 56. *Polystichum lonchitis* from the herbarium of Nathaniel J. Winch. Note the expert pressing. The label (no. 891) has been cut from spare pages printed for this purpose from *The Botanist's Guide*, 1805. " In the Fissures of Rocks between Widdy Bank and Caldron Snout, D. [County Durham] -*Rev. J. Harriman.* " The British Herbarium, Botany Department, Natural History Museum, London.

891. Aspidium Lonchitis.

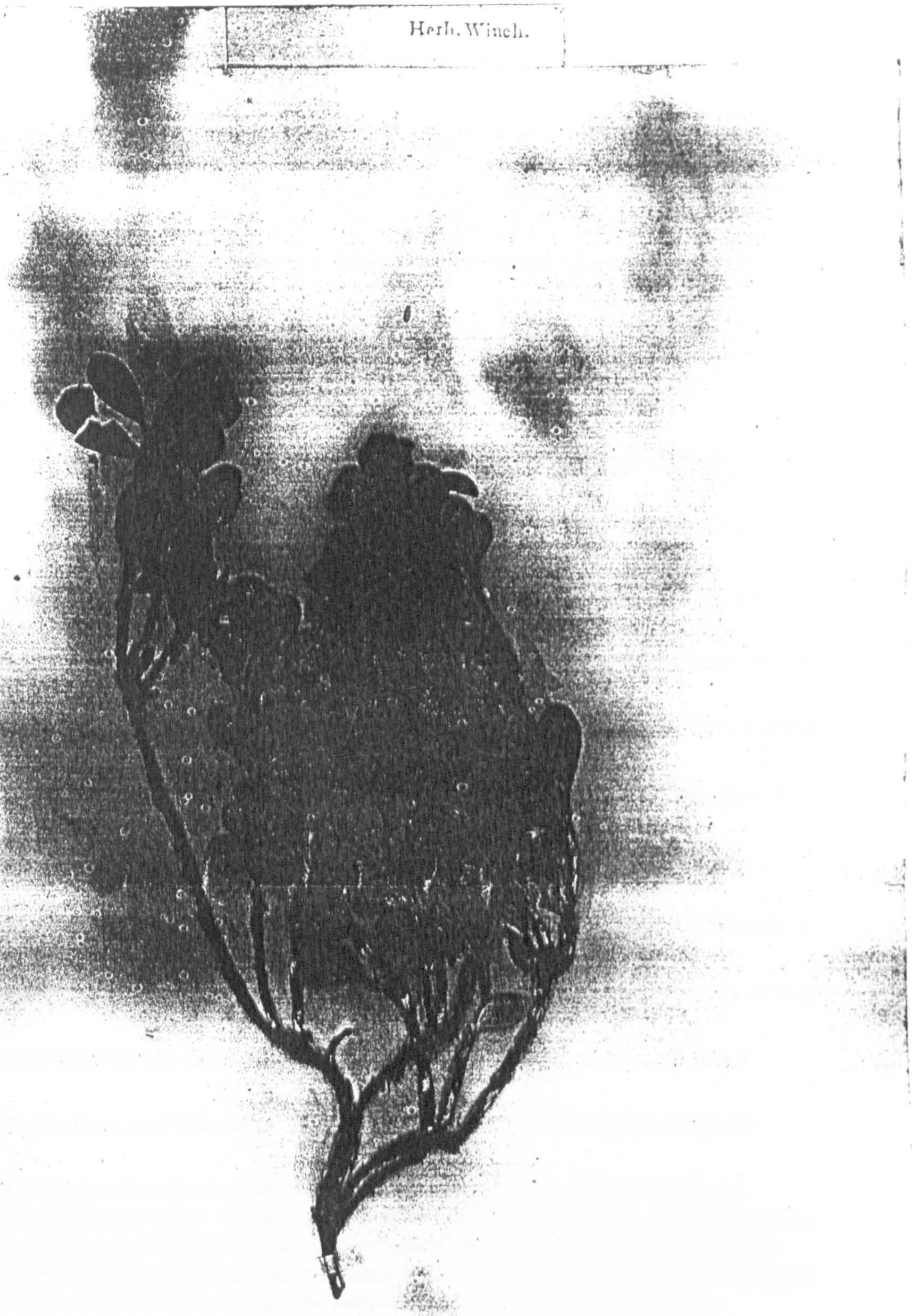
Polypodium Lonchitis.—*Bolt. Fil. t.* 19. *Eng. Bot. t.* 797.

In the Fissures of Rocks, between Widdy Bank and Caldron Spout.

D.—*Rev. W. Harriman.*

Plate 57. *Arctostaphylos uva-ursi* from the herbarium of Nathaniel J. Winch. The label is indeed in Harriman's hand. The British Herbarium, Botany Department, The Natural History Museum, London.

Herb. Winch.



701

Arbutus Unedo - wild.
(2.) in the Year above
the High Force, & in
Crowdley Year. J. H.

[John Harriman?]

specimens of each. Examples are given at **plates 56** to **63** inclusive. In the remaining ten cases, Harriman is treated as the authority because Winch did not collect specimens of these ten plants. In both situations it cannot be implied on the information given that either Winch or Harriman discovered these plants in Upper Teesdale. However, it has to be said that a casual reader could be forgiven for thinking that these Teesdale rarities were discovered in Upper Teesdale by Winch and Harriman respectively. Only in one case does Winch (1831:68) state: "First found by the Rev. J. Harriman", namely, *P. lonchitis*, which has already been discussed. Winch points out in *The Botanist's Guide* (p.5) that *K. simpliciuscula* "was pointed out to [me in Upper Teesdale] by the Rev. John Harriman, August 25th, 1799." In *The Flora*, Winch (1831:17) states of *G. verna*: "First pointed to me in 1799 [in Upper Teesdale], by the Rev. J. Harriman", and of *B. alpina* (p.41): "First pointed out to me [in Upper Teesdale] by the Rev. J. Harriman." The purpose of *The Botanist's Guide* is simply to inform the botanist as to where he can see the plants which have been found growing by the editors or their botanical friends in the counties of Northumberland and Durham. Thus, it further states in the preface (p. ii):

> ...As botanists however have been frequently misled by the insertion of plants in provincial Floras, which, by cultivation or some other cause, had been extirpated a long time previous to their habitats having been published, and the value of the following pages chiefly depending upon their accuracy in this particular, the Editors have thought it proper on that account, to state the authorities on which the catalogue rests...

Turner and Dillwyn adopt a different approach in *The Botanist's Guide through England and Wales* which was published a few days after *The Botanist's Guide*, on 10 August, 1805. Turner explains in the preface (p. xi):

> ...A considerable difficulty arose in our minds whether habitats, which have been long known, should in general be referred to those who originally discovered them, or

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[52] JS ref: 9/A25/f.60.

Plate 58. *Vaccinium uliginosum* in the herbarium of Nathaniel J. Winch. Apparently the plant was scarce! The Hancock Museum, Newcastle upon Tyne.

363. Vaccinium uliginosum.
[On Meldon Fell.] *Rev. J. Harriman.*

Plate 59. *Saxifraga stellaris* in the herbarium of Nathaniel J. Winch. " By Eglesbourn, and Rills in Egleshope, D.- *Rev. Jno. Harriman.* " The Hancock Museum, Newcastle upon Tyne.

991. Saxifraga stellaris.
By Eglesbourn, and Rills in Eglesbope, D.—Rev. T.

Plate 60. *Potentilla fruticosa* from the herbarium of Nathaniel J. Winch. Winch has had this label specially printed: " *Banks of the Tees, near the High Force.* " No doubt he had other labels specially printed (for a special herbarium?). The British Herbarium, Botany Department, Natural History Museum, London.

Plate 61. *Kobresia simpliciuscula* in the herbarium of Nathaniel J. Winch. The Hancock Museum, Newcastle upon Tyne.

39. Schoenus monoicus.—*E. Bot.* 1410.
On Widdy Bank, Teesdale Forest. Cronkley Fell, D.—This plant was pointed out to N. J. W. by the Rev. John Harriman, August 25th, 1799.

7
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umberland, Durham and
Newcastle-upon-Tyne
UM—NATHANIEL J. WINCH

Plate 62. *Tofieldia pusilla* from the herbarium of Nathaniel J. Winch. " Near Widdy Bank on Teesdale Forest, D. {Also on Cronkley Fell.} " The British Herbarium, Botany Department, Natural History Museum, London.

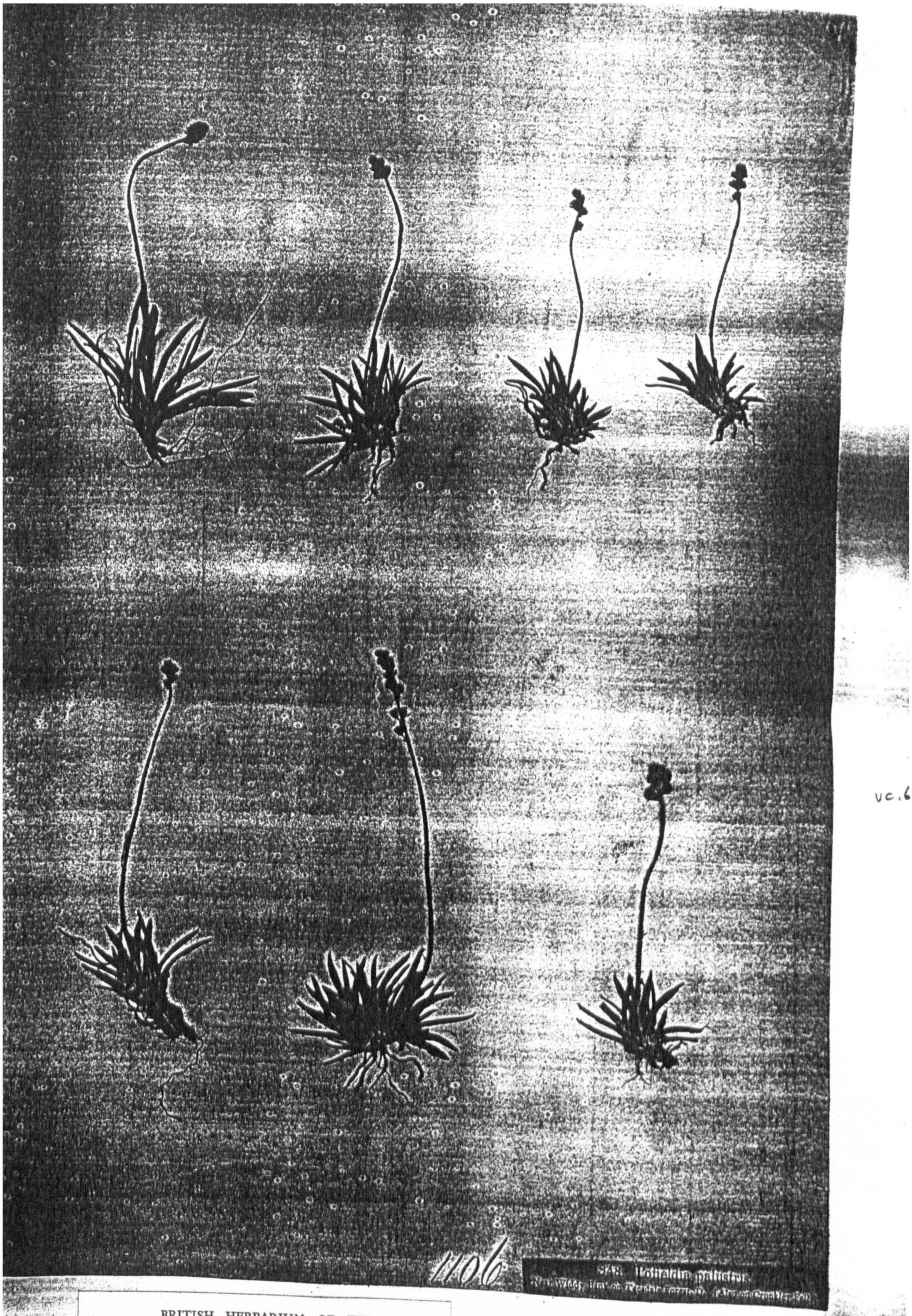

Plate 63. *Hammarbya paludosa* in the herbarium of Nathaniel J. Winch. The Hancock Museum, Newcastle upon Tyne.

769. Malaxis paludosa.

On Egleston Moor, D.—*Rev. J. Harriman.*

> whether, where it was in our power, it would not be proper to quote the testimony of more recent observers; the latter plan may appear to rest upon better authority, and would evidently have the advantage of shewing that the plants continue to grow in the places assigned to them: but a sentiment of justice towards those of whose labours we now reap the fruits, and a feeling that we are acting in the manner in which we should ourselves wish others to act towards us, have induced us to forego these advantages, except in the cases of those stations which have been called in question, and except where the communications of our friends defined the spot more accurately than had been done before...

My sympathies lie with the latter approach.

When did Winch collect the thirty-five Teesdale rarities in Upper Teesdale? We know that he was in Upper Teesdale with Harriman on 25 August, 1799. Winch has annotated his personal set of William Withering Jnr.'s *A Systematic Arrangement of British Plants*, fifth edition, 1812,[53] with records of ninety-three vascular plants which he found in Upper Teesdale in 1799 and 1800, including forty-one " Teesdale rarities " (Winch did not see *S. rosea, T. europaeus, A. vulneraria* and *P. lonchitis* in Upper Teesdale in 1799 or 1800), as well as records from elsewhere. In each case he states where and when he saw the plant. The sites are those in Turner and Dillwyn's *The Botanist's Guide through England and Wales*, 1805. It will be recalled that Winch did not fill in Turner's questionnaire for this work, but sent him his annotated Withering on loan. It appears, therefore, that Winch cumulatively updated each new edition of Withering, perhaps with a view to a new edition of *The Botanist's Guide*. However, he also heavily annotated his personal, interleaved copy of *The Botanist's Guide*! Despite having seen these plants himself in Upper Teesdale, Winch gives Harriman as the authority for nineteen of these ninety-three records. These nineteen records include, of course, the ten records for Teesdale rarities in Upper Teesdale referred to above, with two

[53] In the library of the Linnean Society of London.

exceptions, namely, *T. europaeus and P. lonchitis*, which Winch did not record. Why did Winch give Harriman as the authority for these seventeen plants when he himself had seen them growing in Upper Teesdale? Because he did not collect them. Why? Because they had either finished flowering or were past their best, that is, they were unsuitable for use as herbarium specimens. However, they were still identifiable. Winch arrived in Upper Teesdale on 24 August, 1799,[54] and left on 26 August, 1799.[55] This was his first visit to Upper Teesdale (Davies [sic] & Leathart,1986:27). He botanised in Upper Teesdale on Sunday, 25 August, 1799, and Monday, 26 August, 1799. The summer of 1799 was cold and wet (Wells, 1977:4).Therefore, it would be a late flowering season. On the Monday he only recorded two plants, namely, *Juncus triglumis* and *Vaccinium uliginosum*, both on Meldon Fell.[56] A study of the dates on which Winch observed these ninety-three plants illuminates his annotated records in Withering, 1812. To examine just six of these records. On 25 August, 1799, Winch observed *Primula farinosa* (Withering Jnr., 1812 **II**: 299), *Gentiana verna* (**II**: 354), *Convallaria majalis*(**II**: 425), *and Aquilegia vulgaris* (**III**: 608). On 3 July, 1800, he observed *Gagea lutea* [57] (**II**: 419), and between 30 June, 1800, and 3 July, 1800, *Sesleria caerulea* (**II**: 184). All these plants, and no doubt others, would be well past flowering when observed by

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[54] Winch's annotation in Withering Jnr. against *Rubus idaeus* (1812, **III**:573) is: "Wolsingham & on the top of Cronkley Fell 24th-25th Augt 1799".
[55] Winch's annotation in Withering Jnr. against *Sedum reflexum* (1812, **II**:527) is: "Wycliffe 26th Aug 1799."
[56] Winch's annotations in Withering Jnr. against *J. triglumis* and *V. uliginosum* (1812, **II**:474 & 460 respectively).
[57] Harriman wrote to Winch on 17 September, 1800 (ref: W1.012): "...The Leaves of Ornithogalum luteum [*Gagea lutea*] being off, I cannot find it a [sic] Present, but I shall easily when it is in flower, & then I will send you roots of it - ..." Presumably, this is the site in *The Botanist's Guide* (I:32): "On the Banks of Tees near Egleston..." *G. lutea* flowers from March to May. Harriman clearly knew his plants near his home in Eggleston.

~~June, 1800, and 3 July, 1800, *Sesleria caerulea* (II: 184). All these plants, and no doubt others, would be well past flowering when observed by~~ Winch. I conclude that Winch's annotated records represent when he first saw the plant in Upper Teesdale, in 1799 or 1800. Of course, if the plant was in flower, the record is when and where he collected it. Where the plant was not in flower on his 1799 or 1800 visits and Winch is the authority for the record in *The Botanist's Guide*, he must have collected it at some (unrecorded?) later date, before 1805. As his visit in 1800 was some two months earlier than that in 1799, no doubt he found some of the plants he had not seen in flower in 1799 in flower. However, he did not note his Withering, 1812, accordingly, because those records were confined to "first sightings" in Upper Teesdale. Clearly, finding plants not in flower indicates an intimate knowledge of their places of growth. In a letter dated 27 December, 1798, Harriman told Sowerby:

> ...How much our [Harriman and Oliver's] respective Collections have been enriched for the Hundreds of Specimens of rare perfect Plants which we [Harriman and Oliver] have supplied,..[58]

I am in little doubt that Oliver paid Binks to collect these hundreds of vascular plants. What better way to gain this intimate knowledge? Accordingly, I believe Binks acted as Winch and Harriman's botanical guide in August, 1799. That this was, indeed, the case is also suggested by the mutual arrangement mentioned earlier which Winch entered into with Binks after his visit to Upper Teesdale in 1799. Such a visit would also have enabled Winch to appraise Binks as a botanist, again, as discussed earlier. It is not known if Harriman was

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in *The Botanist's Guide* (I:32): "On the Banks of Tees near Egleston..." *G. lutea* flowers from March to May. Harriman clearly knew his plants near his home in Eggleston.

[58] JS ref: 9/A25/f.57. In this same letter Harriman remarks: "...We have exported some Hundreds of Specimens of Lichens - all the rare Spec. of Lichens that have been received

present on the Monday. Winch visited Upper Teesdale again from 30 June, 1800, until 3 July, 1800.[59] The summer of 1800 was hot (Wells, 1977:5). Therefore, it would be an early flowering season for plants flowering after the spring. In addition to vascular plants, Winch also recorded fifty-five species of lichen in Upper Teesdale on his visit in 1800.[60] Only four species were recorded in 1799.[61] I suggest that Harriman was teaching Winch how to identify lichens on his visit in 1800. In 1801 and 1802 Winch also recorded lichens in Upper Teesdale, but far fewer numbers of species.[62] My elucidation of Winch's annotated records in Withering, 1812, has given me some headaches!

I believe the dates of Winch's visit in 1800 are significant. Harriman was the sub-curate at Eggleston from 22 September, 1795, until the beginning of June, 1801. His curate, and, therefore, his employer, was still Isaac Farrer, until William Marks took over on 11/13? July, 1800. Presumably, Farrer effectively retired when Harriman took over on 22 September, 1795. Farrer was responsible for half Harriman's stipend of thirty pounds a year. The other half was met voluntarily by the Bishop, possibly because Farrer was "old and poor." [63] Marks was the first "perpetual curate" [64], that is, incumbent, of

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from this County have been furnished by us from this Neighbourhood - ..." I am in little doubt that Binks collected these lichens as well.

[59] Winch's annotation in Withering Jnr. against *Turritis hirsuta* (1812,II:730) is: "Eggleston and Middleton 30th June-1-3-July,1800."

[60] Winch's annotations to Withering Jnr. (1812, IV:1-83).

[61] See note 7/60 above.

[62] See note 7/60 above.

[63] DUASC. Refs. Durham Diocesan Records. Diocese book, 1793, with later additions. Auckland Castle Episcopal Records. Diocese book, 1793, with later additions. I don't know how Farrer was able to pay Harriman! Perhaps with augmentations granted by Queen Anne's Bounty (see below)?

[64] A perpetual curate had tenure, which curates ordinarily lacked (and still lack) (D. M. Knight, pers. comm.).

Eggleston, which may have put Harriman's financing on a different footing [65] (Miss M. S. McCollum, pers. comm.). If the financing of Harriman did not change, Marks would have become responsible for the whole of his salary of thirty pounds a year. Marks had other assistants after Harriman left, so he was clearly able to afford to pay them (Miss. M. S. McCollum, pers. comm.). My scenario is as follows. Harriman's employment by Marks was very much a personal matter between them (Miss M. S. McCollum, pers. comm.). I believe that Harriman was fearful of losing his job when Marks took over on 11/13? July, 1800. As Eggleston was a chapel of ease to Middleton-in-Teesdale until Marks became the incumbent, Harriman must have been known to Marks prior to 11/13 July, 1800, indeed from 1795.[66] Harriman may have been fearful because of the financial consequences of Marks taking over, and/or for personal reasons. In any event, Marks employed Harriman for nearly a year. In these circumstances, Winch visited Upper Teesdale from 30 June, 1800 until 3 July, 1800. He wanted to be sure of one more botanising expedition into Upper Teesdale with Harriman, should Harriman have to leave on Marks's appointment on 11/13? July, 1800. This, of course, reinforces the notion of Oliver having washed his hands of conventional botanising. Winch would know that he could not expect any help from him. He purchased specimens from

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[65] The change from a chapel of ease to Middleton-in-Teesdale to that of a perpetual curacy was probably as a result of augmentations granted by Queen Anne's Bounty. Perpetual curacies became vicarages in the second half of the nineteenth century (Miss M. S. McCollum, pers. comm.). Queen Anne's Bounty was a fund formed by Queen Anne in 1704 to receive the firstfruits and tenths which had been confiscated by Henry VIII; they were to be used **to augment the livings of the poorer Anglican clergy**. Firstfruits or annates were the first year's revenue of an ecclesiastical benefice, paid to the Papal curia. In England payments were transferred to the Crown in 1534; in 1704 they were converted into " Queen Anne's Bounty " (Livingstone, 1996: 425, 23).

[66] Marks was licensed as curate to Middleton-in-Teesdale in 1788. Ref. Durham University Library Archives and Special Collections. Auckland Castle Episcopal Records. Diocese book, 1793.

Binks, whom he had had an opportunity to appraise, specifically with regard to botany, in 1799. But, he was dependent on Harriman with regard to the flora of Upper Teesdale. That a significant number of Winch's annotated records for his visit in 1800 were made in the neighbourhood of Eggleston indicates that Winch was with Harriman in 1800 as well as 1799.

With Harriman's departure from Eggleston for Gainford, seventeen miles down the dale, at the beginning of June, 1801, the burst of botanical activity in Upper Teesdale which started in 1796 was over. Harriman was very much involved in the preparation of both volumes of *The Botanist's Guide.* The second volume, which appeared in 1807, dealt with the cryptogams (excluding the mosses which are dealt with in volume one), including the lichens. The publication of the first volume in 1805 set the floristic seal on Upper Teesdale. The large number of species and the rarity of the alpine plants growing in Upper Teesdale would be evident to even the most cursory reader from volume one of *The Botanist's Guide*. However, Upper Teesdale was still very much off the beaten track for the great majority of botanists. As discussed earlier, the publication of *The Botanist's Guide* was in some ways counter productive: it marked a decline in interest amongst most local botanists. However, Binks and Oliver were still available to visiting botanists in Upper Teesdale, which brings us back full circle to the visit of the youthful James Backhouse Snr. in 1810.

I have dealt with the discoveries of *Saxifraga hirculus, Hippocrepis comosa* and *Epilobium alsinifolium* near or in Upper Teesdale. Thus, a total of forty-

"...'Teesdale rarities'...became known to the botanical world previous to the year 1820" (Backhouse Jnr., 1884:10) in Upper Teesdale.

CHAPTER 8

CONCLUSIONS

The questions I posed in my introduction, which I repeat here for convenience, are now answered.

1. To whom is the credit due for discovering the Teesdale rarities?

William Oliver (1760-1816), surgeon of Middleton-in-Teesdale discovered most of the Teesdale rarities recorded before 1820. His discoveries facilitated the floristic recognition of Upper Teesdale. It is also clear from Horsman (1990; 1995) and Clapham (1978:19-20) that, in absolute terms, Oliver discovered most of the Teesdale rarities. Godwin and Walters (1967:348) summarise the situation as follows: "...We find that the outstanding rarities of the valley had been described before the end of the 18th Century, and detailed exploration by botanists in the first half of the 19th Century added most of the less conspicuous of the vascular plant species to the list..."

2. How was the botanical discovery of Upper Teesdale accomplished?

Oliver arrived in Middleton-in-Teesdale in 1783. As a botanist he started discovering plants in Upper Teesdale. Thirteen years later, in July, 1796, The Rev. John Harriman (1760-1831) FLS 1798 arrived in Upper Teesdale to become curate of Eggleston, a Chapel of Ease to Middleton-in-Teesdale. Like Oliver, he was a botanist when he arrived in Upper Teesdale. He already knew Edward Robson (1763-1813) ALS 1790 of Darlington, a botanist of national standing. Harriman's role was as the link between the

intellectually and geographically isolated Oliver and Robson, who was in touch with the botanical *literati* of the day, in particular the authors of *English Botany*, James Sowerby and [later Sir] James Edward Smith. Initially the Teesdale rarities were sent by Harriman to Robson to send up to Sowerby for *English Botany*. John Binks (1766-1817) was a lead miner. He was also a part-time professional plant collector. He worked for Oliver in this capacity in the period *after* Oliver had discovered most of the Teesdale rarities. In this capacity he found and brought under notice some of the Teesdale rarities.

3. By what date was the floristic recognition realised? Is the date significant?

Formally by 1805, with the publication of the first volume of *The Botanist's Guide through Northumberland and Durham*, edited by Nathaniel John Winch (1768-1838), John Thornhill (1760-1826) and Richard Waugh (d. 1806). That the mountains of Upper Teesdale were: "well known to be propitious to the growth of alpine plants..." (Winch *et al.*, 1805: (iii)) was clearly recognised prior to 1805. However, this flora identified the floristic importance of Upper Teesdale. Any informed reader would quickly recognise the richness of Upper Teesdale by perusing its pages.

The date of publication of the first volume of *The Botanist's Guide*, namely 1805, may have been influenced by the New Institution launched by the Newcastle Literary and Philosophical Society in 1802, and by the publication of the third volume of J. E. Smith's *Flora Britannica* in 1804.

The Linnaean " Sexual System " lasted in Britain almost unchallenged until 1810 (Linnaeus, 1753, Stearn in facsimile 1957:80). Thus, *The*

Botanist's Guide was published whilst this system was still in its heyday in Britain. Winch commenced botanising around 1795 (Davies [sic] & Leathart, 1986:27). No doubt he was influenced by the third edition of William Withering's *An Arrangement of British Plants; According to the latest Improvements of the LINNAEAN SYSTEM*, written in English, which appeared in 1796. It is interesting to note that in the second, and final, volume of *The Botanist's Guide*, which appeared in 1807, the editors abandon Linnaeus and his single genus *Lichen* in favour of his fellow Swede, Erik Acharius (1757-1819), and his treatment of lichens. For the first time British lichens were arranged according to Acharius's *Methodus qua omnes detectos lichenes*, 1803 (Winch *et al.*, 1807:(vii)). It has to be said that Linnaeus did not pay a lot of attention to the non-vascular plants, including lichens. Nevertheless, this is a challenge to Linnaeus.

4. What is the significance of the floristic recognition of Upper Teesdale?

The floristic recognition of Upper Teesdale signified the awareness that there was an unusually large number of very rare/rare/local plants growing in this small area. This recognition must have raised questions about plant distribution. Winch not only edited the Upper Teesdale records for *The Botanist's Guide*, he knew Upper Teesdale personally. In 1819 his paper entitled: *An Essay on the Geographical Distribution of Plants through the Counties of Northumberland, Cumberland and Durham* appeared. Raven in Raven and Walters (1984:21) states that in this paper Winch for the first time analyses and classifies a particular portion of the British flora according to geographical distribution. In fact this paper first appeared in the previous year under the title: *On the Geography of Plants* (Winch, 1818 **XI**: 334-

342, **XII**: 45-48). In a letter dated 10 November, 1816,[1] W. J. Hooker suggested to Winch that it would be interesting to relate the flora of an area to the underlying geology and soil type. Hewett Cottrell Watson (1804-1881) was the " " Father of British topographical botany " " (Desmond, 1977:643). In his book: *Outlines of the Geographical Distribution of British Plants; belonging to the division of Vasculares or Cotyledones*

(Watson, 1832: vi-v) he remarks:

> ...Previous to the publication of Dr. Hooker's British Flora, even the Topographical Range [of plants] had scarcely been attended to by the botanist's of Britain. Its author has made a judicious advance on his predecessors, in avowing himself " rather anxious to indicate the range of the species than the precise spot where any one is found. " Of late years, too, the authors of local floras, and contributors to scientific periodicals, &c., have evinced a similar spirit of more enlarged conception than mere nomenclature or rarity-collecting; in proof of which, it will be sufficient to cite the various works of N. J. Winch, Esq. in relation to the botany of the north of England. If other botanists of leisure would devote a portion of their time to giving lists of the plants found in their own neighbourhood, or seen during their tours, they would be contributing much more to the advance of science than by the creation of imaginary species...

5. What do the botanical discovery and floristic recognition of Upper Teesdale reveal about botanising in Linnaean Britain?

Because of the much easier Linnaean " Sexual System " of plant classification and its availability in English, and the Linnaean binomial system of nomenclature no longer making it necessary to try and remember cumbersome Latin polynomials or phrase names, field botany was no longer the prerogative of the educated upper and middle classes. Field botany became increasingly accessible in the late nineteenth century to the commonalty. The Linnaean systems gave rise to two influential British foundations: the Linnean Society of London in 1788 and, two years later, the classic *English Botany*. *English Botany* and the national effort that went

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[1] W3.134.

into it could be considered to be a progenitor of the Botanical Society of the British Isles' 1962 plant atlas. The botanist looking for recognition sought acknowledgement of his plants and/or observations in the pages of *English Botany* and thereby election as a Fellow of the Linnean Society. *English Botany* also enabled botanists to expand their botanical knowledge and their herbaria because they knew to whom they should apply for duplicates. These duplicates helped them to identify plants which were new to them, in new areas. However, the purchase of *English Botany* would have been beyond the means of most botanists. Nevertheless, they might know someone with a set. The Linnean Society was also important because its founding president, [later Sir] James Edward Smith, owned Linnaeus's herbarium. If you found an apparent nondescript, it had to be compared with this herbarium to try and name it. This, in itself, could lead to one being recommended as a FLS.

The problems of sending fresh plant specimens long distances had been overcome. Printed *plantae desideratae* and lists of rare local plants perhaps represented the birth of the systematised exchange of plant specimens, which was to blossom later in the nineteenth century in the British Isles. That such lists were coming into use presaged studies in plant distribution. Linnaean botany in Britain accelerated the progress of field botany from purely floristic to distributional studies.

The botanical discovery and floristic recognition of Upper Teesdale was achieved against the back cloth of Linnaean botany.

POSTSCRIPT

I have just discovered that Robert Langlands (1730-a.1783) (Wallis and Wallis, 1988: 374[1]) MD FCPE of Edinburgh and Hawick was a botanist who sent John Hope (1725-1786) British plants (Anon., 1907: 125, 192; Scott, 1981: 73-74; Craig and Laing, 1898: 222). Langlands gained his MD at Edinburgh in 1750 (Anon., 1907: 125), and became a physician in Edinburgh (Wallis and Wallis, 1988: 374; Scott, 1981: 74). However, in the hand written Catalogue of Hope's *hortus siccus* dated 1768 is the entry: " Phallus esculentus.., Dr. Langlands near Hawick " (Anon., 1907: 192). Further, in a legal document concerning Hawick Common and dated 15 October, 1767, Langlands appears, as one might expect (although he worked in Edinburgh), as: " ROBERT LANGLANDS OF LANGLANDS ". A William Scott of Burnhead, Hawick, also appears (Oliver's maternal grandfather?) (Craig and Laing, 1898: 222). It, therefore, seems at least possible that Langlands was not just an absentee landlord with regard to his Hawick estate. The Langlands family of Langlands, Hawick, can be traced back to the thirteenth century. Robert was the last laird of Langlands. He sold what was left of his estate in 1783. Thus, he was connected with Hawick until Oliver left in 1783. Langlands is now Wilton Lodge Museum (Scott, 1981: 73-76).

The following entry appears in Hope's botany class list for 1780: " M^{r} Ja^{s} Hay Probationer D^{r} Langlands ." [2] Comparing the layout of this list with that for say 1783, where the equivalent page is headed: "Gentlemen to whom Tickets were given gratis",[3] I am in no doubt that Hope admitted Langland's pupil to his botany class for 1780 free in return for the plants Langlands had sent him. This suggests that

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[1] The date 1730 may be an estimate.
[2] Royal Botanic Garden, Edinburgh, ref. GD253/144/8/13.

Langlands had sent Hope a significant number of plants, from the Hawick area rather than Edinburgh, or from further afield? Perhaps Langlands knew Hope personally. It is interesting to note that Hay did botany from April to June, 1780, and Oliver commenced at Edinburgh in November of the same year. One wonders if Oliver did not do botany because he had access to Hay's notes through Langlands (see below)?

Langlands and William Scott (1720-a.1791), Oliver's maternal grandfather, were not only contemporaries, they were also physicians, perhaps with a shared interest in Hawick Common. Hawick was a small community. Even though Langlands worked in Edinburgh, I cannot believe that they did not know each other. Perhaps Oliver's youthful interest in botany was initiated or reinforced by Langlands. It seems too much of a coincidence that there was a botanist with Hawick connections and in touch with Hope when Oliver was growing up and training as a surgeon in Hawick. Did Langlands give Oliver a letter of introduction to Hope when he started at Edinburgh in 1780? Perhaps Langlands was instrumental in Scott getting his MD from Aberdeen?

[3] Royal Botanic Garden, Edinburgh, ref. GD253/144/8/7.

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